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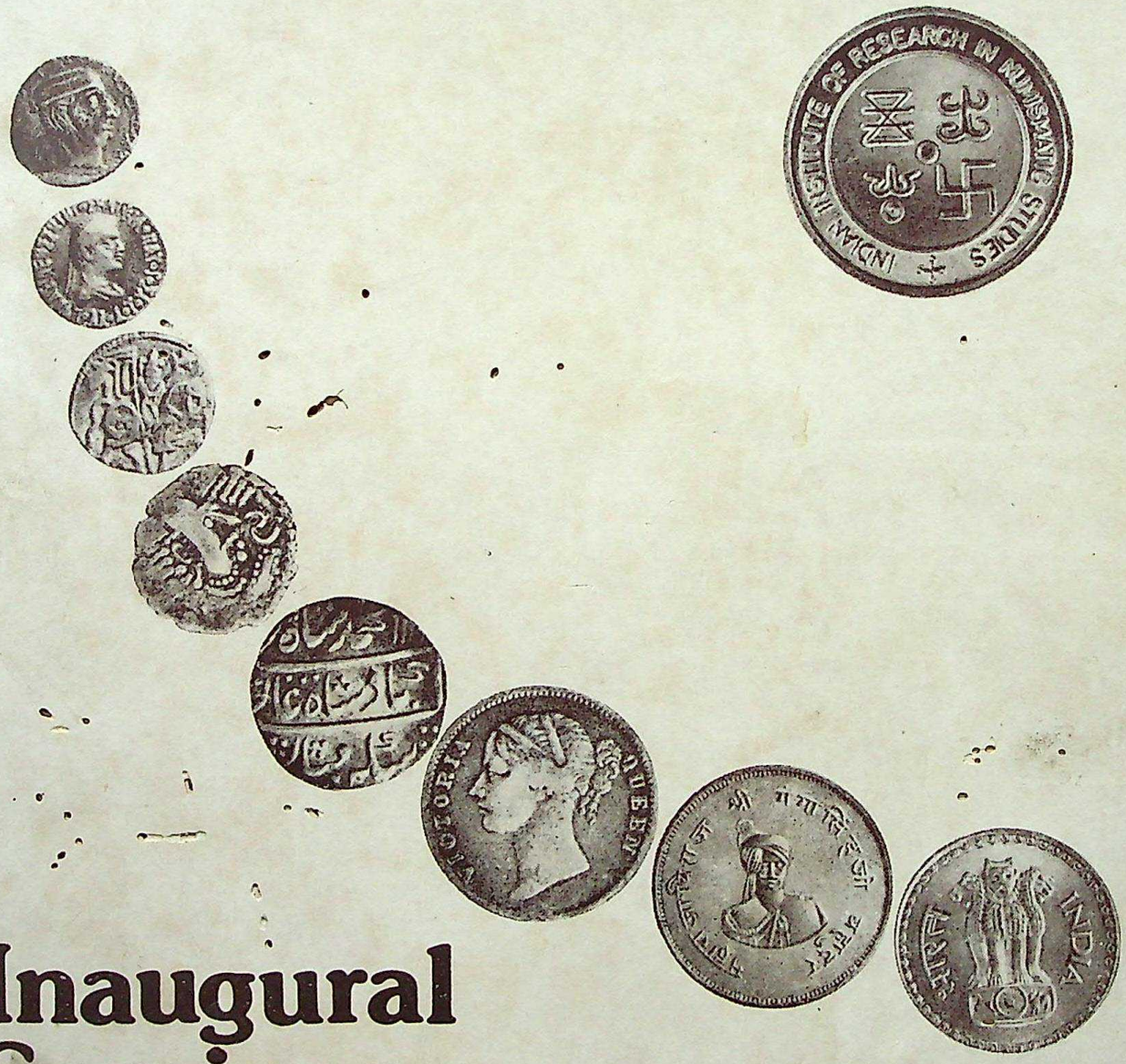

Inaugural Seminar

8th to 10th January 1984
Nashik, India.

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8-10 January 1984

NUMISMATICS & HISTORY

INDIAN INSTITUTE OF RESEARCH IN NUMISMATIC STUDIES

P.O. Anjaneri
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THE COINAGE OF EUDAMOS
A GREEK SATRAP IN THE PUNJAB (325-316 B.C)

PAUL BERNARD

Since the publication, in 1887, of the first of them(1), the rare and famous decadrachms representing the fight between Porus and Alexander at the battle of the Hydaspes have never ceased to stimulate scholars' interest(2). This interest has received a new impetus from the recent discovery, in a Mesopotamian hoard, broken up and sold on the market(3), of several new exemplars along with some tetradrachms belonging to two closely related series, hitherto unknown, one of which bears the same control marks as the decadrachms. Among the articles devoted to these new finds let us mention those by Mrs Nicolet Pierre(4), Mr N Durr(5) and Mr M J Price(6). Generally speaking, these coins are thought to have been minted in Babylon towards the end of Alexander's life or just after his death. My intention is to show that they were coined in Susa in 317-316 on behalf of Eudamos, one of the two Greek satraps left in northwest India by Alexander and who, with other satraps from Iran and Central-Asia, came to Mesopotamia in 317 to join Eumenes' forces in their fight against Antigonus. Let us emphasize, from the start, that there can be no doubt about the identification of the scene representing a horseman chasing a mounted elephant as an episode of the battle of the Hydaspes with Alexander fighting Porus in person. Some commentators have questioned this identification because Alexander's historians never mention such a duel. These scholars suggest that either the scene represents one of the Indian princes, Taxiles or Meroe, who, having allied themselves with Alexander, were sent by him to catch Porus, after the battle(7), or that it represents, symbolically, within the context of the battle of Gaugameles, a fight between the Macedonian cavalry and the Indian elephants of Darius III(8). Both interpretations

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are indefensible, the first because it is inconceivable that in a scene illustrating a battle which was so instrumental to the creation of Alexander's legend, the starring role should be attributed to a minor character, the second because elephants did not play any role at all at Gaugameles(9). In fact, the horseman is Alexander; his helmet, of Thracian type, with its peak curbing forward(10), and two tall feathers on either side, is the same as that of the Alexander who appears on the reverse on the same coins as Zeus's son, holding the thunderbolt in his right hand. The elephant that Alexander chases is necessarily Porus's. What we have here is a version of the event already transformed by legend. We know, through Diodorus, Arrianus and Quintus Curtius(11) that Alexander never fought Porus face to face at the Hydaspes but we also know from a passage in Lucian that even during Alexander's lifetime some historian from his court wanted to represent him out of flattery and in contradiction with historical fact, directly attacking Porus and killing his elephant with a single javelin shot(12).

There is still one more correction to bring to the interpretation of the scene. All scholars have agreed that the person sitting behind the mahout on the elephant's rump, who tries to repel, with his two hands, the spear that Alexander aims at him, is Porus. It is difficult however to reconcile the contrast between Porus' undignified and humiliated attitude on the decadrachms and what the historical sources tell us about his courage, which earned Alexander's respect, and about his subsequent faithfulness as an ally of the king. Furthermore, in ancient Indian art, every time a prince is represented with somebody else on an elephant, it is he who sits on the animal's neck and steers him with the ankusa(13), a fact which bears out what we know about the education of Indian princes, who were taught to drive elephants. If we apply these observations to the decadrachms we can deduce that Porus is not the man sitting on the back of the elephant, but rather the one who sits up front, on the neck and turns around to throw a javelin at Alexander, while holding in his left hand another javelin and the ankusa. Depicted this way, Porus reassumes his true identity of a brave

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opponent and future ally. The person behind him who tries to repel Alexander's spear is probably an attendant.

Students of this group of coins have been almost unanimous in recognising the Indian character of the iconography, whether it depicts the battle of the Hydaspes, as on the decadrachmas, or a running elephant, mounted or not, a war chariot or a bowman, as on the tetradrachms. But these types are so true to life, betray such a thorough knowledge of Indian culture and custom that one feels compelled to assume that the engravers were either personally familiar with the models or else had first-hand information about them from eye-witnesses. Even more significantly Indian than the chignon hairdoes is the way the bowman's lion-cloth drapery forms a heavy fold between the legs, fold which is so characteristic of the dhoti in archaic Indian art. The bow, as tall as the bowman, fits the description Nearchus gives us of the Indian variety of that weapon (arrian VIII, 15,16,6-7). Its characteristic shape, with its double curvature, can be found on the earliest bas-reliefs of Indian art (Bharhut, Bhaja, Sanchi I, Amaravati, Nagarjunakonda, etc(14)). The war chariot, drawn by two or four horses and carrying a warrior, generally armed with a bow, standing besides a driver, which appears in Vedic and epic literature, is also a requisite instrument of war for the Kshatriyas(15). Alexander's historians mention a great number of these chariots in the Indian armies with which the conqueror had to fight. On the same monuments we can observe the same type of pennant that we see on the tetradrachmas, with the same long flag unfurling, held the same way by the bearer, the shaft resting upright on the elephant's back(16). Lastly, let us not forget that, as we have already mentioned, the engraver was clearly aware that an Indian nobleman drove his elephant to battle himself.

The remarks we have just made would seem inevitably to lead to the conclusion that these coins were minted in the Punjab under the first Greek rule (327-315 B.C). This conclusion must be rejected without hesitation for three reasons. A) We have no proof of the existence of

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a Greek mint in the Punjab during this period, whereas we do find the same exceptional denomination of decadrachms, but with different types, produced by the Babylonian mint(17). B) The minting technique, with very thick flans and straight edges, is characteristic of certain Babylonian series(18). C) The relatively large number of our series found in the recently discovered Mesopotamian hoard would seem to indicate that the origin of these coins must be in that same area. However strongly these factors may argue for an attribution to the mint of Babylon, we must eliminate it also, for nothing in the history of Babylonia in the last quarter of the 4th century B.C can explain the presence of such typically Indian motifs in these three different series. If, however, we attribute these coins to Eudamos, a Greek satrap in the Punjab who joined Eumenes in his war against Antigonus in lower Mesopotamia and along the western border of the Iranian plateau, we find good reason for both the predilection for Indian iconography and a minting technique closely related to that of Babylon. This Eudamos had been granted dominion by Alexander over a satrapy which included the kingdom of Taxiles and extended to the confluent of the Indus and the Chenab(Acesines)(19). Neither division of Alexander's empire, that of Babylon in 323, or that of Triparadisos in 321, affected his position. In 318/317 B.C he joined the coalition of oriental satraps who sought to foil the ambitions of one of their colleagues. Peithon, satrap of Media. After having defeated Peithon, the allies joined forces with Eumenes of Cardia who had gone to Mesopotamia to prevent Antigonus from succeeding in his endeavor to reconquer the empire for himself(20). In this alliance, Eudamos played a crucial role thanks to his 120 elephants(21) which were the only ones available to the coalition and which gave them an advantage over Antigonus' 65 elephants. The importance Eumenes attached to the alliance with Eudamos is revealed by the financial tractations he entered into with him: he paid him an amount of 200 talents(22), ostensibly for the elephants' upkeep, but at the same time he borrowed money from him to be sure that Eudamos wouldn't abandon him(23). When the allies were defeated in the winter of 317-316, Eudamos was the

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only coalition leader to be executed along with Eumenes. This punishment was meted out not only to the rebel satrap but also to the master of the much coveted elephants, which Antigonus could now appropriate for himself.

The coalition army had joined Eumenes in Susiana(24) and it si there, in our opinion, in Susa's mint, whose existence is well attested by other coinages(25), that Eudamos coined our decadrachms and tetra-drachms, in order to pay his troops and to maintain his elephants. The attribution of this coinage to a satrap whose power base was in the Punjab would explain both the exclusively Indian themes and the genuine Indian flavor of the iconography. The engravers must have had Eudamos' elephants before their eyes to work from, and perhaps Indian bowmen as well. For the rest, they could rely on eye-witness reports from Eudamos' staff. Eudamos has been suspected of killing Porus in order to take possession of his elephants(26). By illustrating, on his decadrachmas, the battle of the hydaspes, he feigned being above these suspicions. Another iconographical feature which reinforces our attribution is the representation on the reverse of the decadrachms of a deified Alexander holding Zeus' thunderbolt in his right hand. This representation seems to us to be intimately related to the cult of Alexander which Eumenes had introduced into the coalition armies(27). To celebrate this cult, the leaders would meet in front of an empty throne upon which the royal insignia had been placed, alongwith the arms belonging to the dead king, whose spirit was supposed to inspire their deliberations, and to whom, according to Diodorus himself, hommage was paid to a god(28).

Thus do history and numismatics join hands to support the thery of a coinage minted at Susa in 317/316, on behalf of Eudamos, Greek satrap of the Punjab and ally of Eumenes.

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Footnotes:

(1) P. Gardner, NC 1887, p. 177-181.

(2) Main publications after P Gardner: B V Head, NC 1906, p.8-9; His . Num. (2nd ed.), p. 873; G.F Hill, BMC Arabia, Mesopotamia, Persia, p. CXLV-CXLVI, 191, n. 61; British Mus. Quart. 1926, p. 36-37 and NC 1927, p. 204-206; G Macdonald in The Cambridge History of India I. Ancient India, ed. E J Rapson (1922, Indian reprint 1962) p. 349; R B Whitehead, NC 1943, p.70; J N Banerji, JNSI 12/2, 1950, p. 118-120; W B Kaiser, Jarbuch d. deutsch. arch. Inst. 77, 1962, p. 227-239; A R Bellinger Essay on the Coinage of Alexander the Great (ANS Num. Notes 11 1963), p. 27; D B Pandey, JNSI 33/2, 1971, p. 1-7.

(3) Coin Hoards I (1975), n° 38; III (1977), n° 22.

(4) Bull. Soc. Fr. Num. 33/7, Juillet 1978, p. 401-403.

(5) Schw. Munzblatter 24/94, Mai 1974, p. 33-36.

(6) Studia P. Noster Oblata (1981) I, p. 75-85. See also M Mitchiner, Indo-Greek and Indo-Scythian Coinage I (1975), type 21; Antike Munzen April 1975, n° 130-132; O. Morchholm in A Survey of Numismatic Research 1972-1977 ed. by R Carson, R Berghans, N. Lowick (1979), p. 67; P Calmeyer, Arch. Mitt. aus Iran 12, 1979, p. 303-313; P Goukowsky, BCH 96 1972, p. 473-502; Essai sur les origines du mythe d'Alexandre, I (1978), p. 63-66; Al. N. Oikonomides, Coin World International 25/11/81, p. 31-32; C. Custis Lorber in Wealth of the ancient world. The Nelson Bunker Hunt and William Herbert Hunt Collections. Kimbell Art Museum, Fort Worth 1983, p. 209-210, n° 101.

(7) B V Head, Hist. Num. (2nd ed.), p. 833

(8) D B Pandey loc. cit. (cf. n . 2); M. Mitchiner, loc. cit. (cf. n . 2)

(9) H H Scullard, The Elephant in the Greek and Roman World (1974), p. 64-65.

(10) On this helmet see M J Price, loc. cit., (see n.2), p. 76-77;

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Al. N. Oikonomides, loc. cit. (see n. 2) and the old but invaluable study by B Schroder, Jahrbuch d. deutschen arch. Inst., 27, 1912, p. 317-344.

(11) Diodorus XVII, 88; Arrian, V, 18; Quintus Curtius VIII, 14.

(12) Lucian, How to Write History, 12. The identification of Lucian of the flatterer as Aristobulus, one of the most trustworthy historians of Alexander's reign, creates a problem: F Jacoby, Die Fragm. griech. Historiker, Kommentar, 139 T4, p. 509-510.

(13) Bharhut: A K Coomaraswamy, La Sculpture de Bharhut p. XI, fig. 30; pl. XXXIII, fig. 89; Bhaja: A K Coomaraswamy, Geschichte der indischen und indonesischen Kunst pl. VIII, fig. 27; Sanchi: J Marshall and A. Foucher, The Monuments of Sanchi, pl. XV, XVIII, XXIX, XLII, XLIV, LVII, LIX, LXI. See also O M Dalton, The Treasure of the Oxus (repr. 1964), p. 199-200 pl. XXVIII.

(14) For this type of bow in India see M B Emeneau, Proc. Am. Philosph Soc. 97/1, 1953, p. 77-87; J Auboyer, Artibus Asiae 19, 1956, p. 173-185. For a general study of this type of bow see O Maenchen-Helfen, The World of the Huns (1973), p. 221-232 and for the Russian documentation A.M Xazanov, Ocerki voennogo dela Sarmatov (Moscou 1971), p. 28-35.

(15) S.D Singh, Ancient Warfare with Special Reference to the Vedic Period (1965), p. 23 sq.

(16) A K Coomaraswamy, La sculpture de Bharhut, pl. XXXIII, fig. 89 (Bharhut), Geschichte, pl. VIII, fig. 27 (Bhaja); J. Marshall and A. Foucher, op. cit. pl. XI, XV, XVII, XLII, XLIV, XLVII (Sanchi).

(17) A.R Bellinger op. cit., p.27.

(18) Lion-staters and double darics: G. Le Rider, Gazette num. suisse 22, Cahier 85 1972 p. 1-7 with references to E. Babelon, F. Imhoof-Blumer, G.F Hill, E T Newell, A R Bellinger, N Waggoner.

(19) L. Schober, Untersuchungen zur Geschichte Babyloniens und deroberen Satrapien von 323-303 v. Chr. (1981), p. 13 sq., 90-93.

(20) Diodorus XIX, 12-34, 37-48; 55-56; Plutarch, Eumenes; Justin XIV,

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2-4. For the bibliography of the events see Ed. Will, Histoire politique du monde hellenistique 323-30 av. J.C. I (2nd ed. Nancy 1979), p. 52-54.

(21) Diodorus XIX, 14, 8.

(22) Diodorus XIX, 15, 5.

(23) Diodorus XIX, 24, 2-3; Plutarch, Eumenes, 13, 12.

(24) Diodorus XIX, 15, 1.

(25) L. Muller, Num. d'Alexandre le Grand, n° s 1562-1565; A.R. Bellinger, A.R. Bellinger, Berytus 10, 1950-1953, p. 37 sq., n°s 131-132; G.K. Jenkins, ANS Museum Notes 9 1960, p.23, 28; G. Le Rider, Suse sous les Seleucides et les Parthes, p. 45; D. Nash, NC 1974, p. 14 sq., particularly p. 24; E.S.G. Robinson, NC 1921, p. 37-38

(26) Diodorus XIX, 14, 8.

(27) Diodorus XVIII, 60, 61, 1-3; XIX 15, 1-4; Plutarch, Eumenes 13,8; Polyainos 4,8,2; C Nepos, Eumenes, 7, 2-3; about the cult rendered to the royal throne see P. Goukowsky, op. cit., p. 96-98.

(28) Diodorus XVIII, 61, 1.

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SOME BRAHAMANICAL DIVINITIES ON THE INDO-GREEK COINAGE REVISITED

A K NARAIN

Scholars of the Indo-Greek coinage have always had a lurking suspicion about the participation of the Bactrian Greeks in the origin and development of some Brahmanic cults and iconography. But the Ai Khanoum coins of Agathocles with the figures of Vasudava and Samkarshana seem to have cleared the ground and it is time that we revisit the Indo-Greek coinage with more confidence to examine the nature and content of their role in taking initiative in the formulation of the iconography of some Brahmanical cult deities. Innovative as they were, and being foreign ethnics wielding political authority, they were not bound (at least when they did not want to be) by the fetters of local tradition; they could afford to be bold.

Anyway, it was the discovery of the Ai Khanoum coins(1) which shook my reluctance and led me to present my paper on the Hermaeus coin with the elephant-faced god, Ganesha along with the Vasudeva-Samkarshana coins of Agathocles, at the Paris session of the International Congress of Orientalists in 1973(2). I propose to revisit these and other coins and discuss some of my second thoughts as well as those of my critics in a workshop seminar like this organised by the first Institute of Numismatic Studies in India to get some feedback.

First, the Ai Khanoum coins of Agathocles. Flliozat(3) and I (4) published our papers about the same time and came to the same conclusion that the dieties represented on them were Vasudeva and Samkarshana which seemed so obvious to us; and, later when both of us met in Paris we felt confirmed in our theories. But M. Bernard, the discoverer of the coins, had still some doubts as to whether one of the deities could not be Siva, because he thought the object in the left hand of the deity was a trident and not a plough. Occurence of

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Siva on the Indo-Greek coins would not militate against the contemporary milieu and the Greek accounts identifying Siva with their own god. In fact, in support of his doubt I drew his attention to the well-known Sivarakshita seal published by Cunningham(5) where the deity is shown wielding a plough like tool similar to the one on Ai Khanoum coins and not a trident. If the name of the issuer has any illusion to his protector god, Siva, it would be interesting to find justification for the plough(?) in the hands of Siva. If no justification for this is found, we must conclude that the deity on the Sivarakshita seal is also Balarama. So also, on a coin of Maues(6) we find the deity holding a tool similar to what we find on the Ai Khanoum coins and on the Sivarakshita seal. Could the deity represented there also be Balrama? Again, discussing the other side of the Ai Khanoum coins while agreeing to identify the figure with Vasudeva, I made a question-marked suggestion that he could be the Buddha(7). After all, the Vasudeva identification is based on the wheel and the circumstantial evidence of the possibility of Samkarshana being on the other side of the coin and thus making the brotherly team. But if the eight-spoked wheel, as represented on coins of Menander(8) could be taken as representing the Buddha(9), why not this wheel on the coin of Agathocles, and particularly when we know from his other coins his use of the Buddhist symbols of Chaitya and Tree-in-railing. It is significant to note that the style of the depiction of wheel on both the Menander and Agathocles coins are strikingly similar. We must note that we are dealing with a period when the iconographic codes had not been settled and there were common and interchangeable elements in the mythological traditions of the Indian deities both Brahmanic and Buddhist. We also know that Siva and Buddha did co-exist in the cultiest traditions(10). Then, finally, the question still remains about the tool shown on the Ai Khanoum coins. It certainly is not a trident but is that really a plough? Bernard in his later and longer article(11) published some drawings of the local ploughs in Afghanistan and the Punjab but they do not exactly resemble the tool shown on the coins of Agathocles or for that matter, on the seal of Sivarakshita and on the coin of Maues. Could that be just a fruit-plucking device? One of the meanings of the Sanskrit word Langala, the object held by Balarama according to texts on iconography, is a

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fruit-plucking long pole(12). If this is so, which deity can we think of? Are we dealing with a Vira (Bir=Hero) of a pastoral society rather than of an agricultural one(13) which is not unreasonable to expect in the region of Afghanistan we are concerned with. Tucci has published some Vira images of Afghanistan(14) and so also we know the multitude of Viras in various parts of India all through history(15).

These are all open questions and answers have to be explored. But in the meanwhile it is encouraging to learn now about the discoveries recently made by the Jettmar-Dani team in the Chilas-Gilgit region of the Karakorum (16). These discoveries not only now confirm my theory about the route followed by the Sakas of Issyk kl moving southward of which Maues was the earliest king in India(17), but also provides among many new and interesting epigraphic and iconographic material, a fresh evidence to support the existence of Balarama and Krishna in the form of sketches drawn on the rocks near Chilas. Since these rock drawings are labelled with inscriptions reading (Bala)rama, Krishna, Baladeva and Vasudeva, the identity of the figures drawn cannot be doubted(18). While both the deities are shown holding in common a club in one of their hands, Balarama is holding a plough-banner and Vasudeva a wheel-like thing. Paleographically, Dani dates these inscriptions to the early Saka period(19). Although these drawings are thus later than the coins of Agathocles, they do confirm the popularity of the cult in the mountainous regions of Karakorum and it need not surprise us if it extended into the Badakshan region. We should now with all seriousness look for the identity of Svetadvipa, mentioned in the Narayani Upanishad in connection with the origin of Bhagvat cult(20), in the mountain valleys of Afghanistan and in the north-west regions of South Asia. These Agathocles' coins should be regarded as the earliest representations of Vasudeva and Samkarshana unless, of course, if one does not take into consideration P.L. Gupta's discovery of Balarama on a punch-marked coin and the dating of the particular series to which that coin might belong(21).

Equally important for the history of religions and arts in India is the Hermaeus coin showing an elephant-faced deity published by me earlier(22)

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but questioned recently in the pages of Numismatic Digest(23). I need not describe the coin again for I assume it is known to all readers of the Numismatic Digest. So far as I have been able to check with those who have seen either the coin or the slide projection and/or the photograph they have all agreed with me that the clear visibility of the elephant's trunk on the coin cannot be denied(24). The only exception is my friend Joe Cribb of the British Museum, whose opinion I value greatly. He does not seem to agree with my description of the coin. I discussed the matter personally with him and I rechecked the coin in the BM. We agreed to differ and so I encouraged him to publish his account of the coin in order that it may draw more attention and more scholars may participate in the discussion; for after all we cannot ignore Ganesa! I am therefore glad now that Cribb's paper is published.

First of all, let me note that Cribb agrees with me that my photograph of the coin as well as his own with the same lighting certainly appear to correspond to my description(25). But what he is concerned about is that another photograph of it, lit from a different angle, shows a different picture and when viewed alongside other coins in the name of Hermaeus, it can be seen that the trunk has disappeared. He considers the coin in question as closest in style to the silver drachms issued in the name of Hermaeus, by his successors, which shows the same features as the lifetime pieces but engraved in a less sophisticated and more stylized manner; and he also brings into discussion the Hermaeus copper with Zeus-Mithra figure wearing a Phrygian cap. In his opinion, these coins (and he also refers to a coin with the same control mark as on our coin in question) depict the so-called Zeus Mithra and not the 'elephant-faced' deity. According to Cribb, the line of 'elephant's trunk' as visible on my illustration is not continuous and that the 'elephant's trunk' consists of Zeus-Mithra's brow, nose and beard and a fold in his gown as seen on other specimens(26). But it is interesting to learn from Cribb that there is a specimen in the coin collection of the American Numismatic Society, New York, which shows the same control mark as the BM coin in question and which is, according to him perhaps from the same die and which shows the same featuries. On this specimen, too, as

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Cribb says, the elephant's trunk is visible if the coin is held to the light at one angle, but disappears otherwise. He therefore thinks that "once again it is the accidental structure of the surface of the coin and not the die-engraver's hand which has created the confusing effect"(27). Unfortunately, I have not been able to examine ANS specimen but certainly -it is gratifying to note from Cribb that now there are atleast two coins where one can see the elephant's trunk if seen from a particular lighting angle.

I agree with Cribb that the uniqueness of this coin demands that it be reexamined although with the ANS specimen, his statement about its uniqueness has to be revised. But I consider it irrelevant to bring into discussion the so-called Zeus-Mithra with the Phrygian cap and the degenerate coins supposedly struck by the hypothetical successors of Hermaeus issued in the name of Hermaeus because they take us to much wider issues than that of Ganesa. I have gone into the political history of the Indo-Greeks in detail and I have not been able to justify the continuation of the Indo-Greek family after Hermaeus. Also, by identifying the earliest Ganesa on a coin of Hermaeus or, for the sake of argument even by a supposed successor of Hermaeus) I do not deny the existence of Zeus or Zeus-Mithra or any other variety of Zeus depicted on the Indo-Greek coinage including on those of Hermaeus. So, if this part of argument put forward by Cribb is irrelevant to our discussion, what is left is what P.L. Gupta has stated in his editorial note to Cribb's article, i.e. .... "Only photo-technicians can provide us true answer"! While this is an interesting suggestion, I do not believe that problems posed by historians and numismatists can be solved by just photo-technicians, even though their assistance is valuable. Since I have been the coin, I still do not like to distruct my vision of it. One may go one step further and say that we need the assistance of an eye-specialist and see if my vision is not distorted! Anyway, to return to a more serious mood, I have discussed this coin and the whole background of the development which led to the representation of the elephant-faced deity in a paper recently contributed to a volume in honor of Professor Tucci, which is still in-press. I have pointed out there that there were fourstages of development through which

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the elephant-gold of Kapisi passed finally to culminate into the form in which we find him on the coin(or coins) of Hermaeus. So, it is not just the question of one coin (or two coins) where so much importance has been given to either the lighting or the angle involved in the photography (in fact, so far as I remember, the slide which Bivar gave me was not influenced by any lighting). And, now if we have one more specimen and that, too, gives the same impression to Cribb, I do not think we can dismiss the issue on the basis of mere photo-technology. As I have said earlier, the Hermaeus coin in question is, in fact, the culmination of a process of accultraion or a result of interaction between foreign and local traditions. The presence of the elephant-faced deity there is not just accidental; it may be experimental but albeit deliberate.

Note: This is an incomplete paper and not for use without Author's consent.

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A HOARD OF COPPER COINS OF KUNINDA AMOGHABHUTI

AVINASH UPADHYAY

I

Practically nothing has been published on Kuninda Copper coins after the Catalogue of Coins of Ancient India in the British Museum by J. Allan. Naturally enough, the classification introduced by Allan in that book is still being followed by numismatists. The main basis for Allan's classification of Kuninda copper coins is the fabric. While coins with neat fabric and good legends are placed in class I others with Coarse fabric and incomplete legends are placed in class II. None of these classes is divided into varieties.

After Allan's description and classification of some fifty odd Kuninda copper coins in 1936, a long lean patch has stretched for over four decades in which nothing of note and certainly nothing new has been published on the subject.

Recently, a hoard acquired by Shri K K Maheshwari from a Delhi dealer and kindly made available to us for study offers many more varieties over those described by Allan. A study of the 355 coins, which the new hoard contains, shows that all the coins are inscribed on the obverse only. This observation, while it tends credence to Allan's statement that all the copper coins bear legend on one face only, denies the same to Cunningham who says that the coins bear legend on both sides.

All coins of the hoard belong to the earlier group of Kuninda coins attributable to the Kuninda chief Amoghabhuti who is generally placed by numismatists in the second century B.C. All the coins of this hoard show the following symbols. The obverse invariably shows a deer standing to right facing a female figure, standing with the left hand akimbo and occasionally holding a lotus in the raised right hand. There is only one coin which is

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an exception to this plan. It shows the deer standing to left facing a female figure which is in the sameposture. The reverse pictures (1) a centrally situated peaked hill (with varying number of peaks) sometimes topped by a triratna and flanked on the sides by (2) Svastika (3) Standard (4) a tree mostly in railing but sometimes without it and (5) a river (suggested by a bent line) flowing below the hill and sometimes origina ing from the base of the hill. While the position of the hill and triratna remains unchanged throughout, the positions of the standard, svastika and the tree in railing change from left to right providing a basis for the distribution of these coins into various varieties. Two other and lesser found symbols (1) a cluster of dots and (2) A circle with a dot inside contribute towards enhancing the number of varieties by their presence or absence. On the obverse sometimes, a vase can be discerned above the back of the deer which also contributes to it.

Apart from the single coin which shows deer facing left and which is placed under Class II all other coins have been placed in Class I and have been further differentiated into 40 varieties.

As stated above, Allan's classification is based upon the coarseness and neatness of the fabric. But in the light of the present study this classification does not seem scientific because (1) any particular arrangement of the symbols, both on obverse and reverse, is found indiscriminately on coins of both neat and coarse fabric (ii) deriving a point from (1) and thinking logically on that line would fetch us to a conclusion that the coin makers were not given any orders as to which particular die should be struck on which particular type of fabric and (iii) it also seems hard to imagine that a particular coin maker fancied a particular arrangement of symbols to be struck on a particular fabric.

What follows from the above points is the fact that both the fabrics were indiscriminately struck with all sorts of the dies and so the discrimination of the coins into different groups must need some ground stronger than presented by the difference in fabric. On the other hand

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it seems that any change in the arrangement of symbols either on obverse or reverse must have been resorted to deliberately, knowing full well the change brought about to the coin. Thus this variation in the alignment of symbols would be a more proper basis for the classification of the Kuninda coins and therefore in this article, such a classification is proposed and adapted to chanelise the coins into different categories.

A description of the two classes and their varieties follows:

Class I

Essential feature - Deer standing to right facing a female figure standing with the left hand akimbo and occasionally holding a lotus in the raised right hand.

Variety 1

Obv: Deer to right in front of a female figure standing with the left hand akimbo and right hand raised.

Rev: Six peaked hill topped by a triratna in the centre. Tree in railing on the right and on the left. River below. Beaded border.

Variety 2

Obv: Deer to right in front of a female figure standing with the left hand akimbo and the right hand raised. A vase above the back of the deer.

Rev: Peaked hill topped by a triratna in the centre. Tree in railing on the right and on the left. River below.

Variety 3

Obv: Deer to right in front of a female figure standing with the left hand akimbo.

Rev: Peaked hill topped by a triratna in the centre. On the left and tree in railing on the right. River below.

Variety 4

Obv: Deer to right in front of a female figure standing with the left hand akimbo.

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Rev: Peaked hill in the centre not topped by a triratna on the left. Tree in railing on the right. River below.

Variety 5

Obv: Same as above.

Rev: Peaked hill in the centre topped by a triratna. On the left tree in railing on the right. River below.

Variety 6

Obv: Same as above with the addition of a vase above the back of the deer.

Rev: Peaked hill topped by a triratna in the centre. Tree in railing on the left. On right and river below.

Variety 7

Obv: Deer to right in front of a female figure standing with the left hand akimbo.

Rev: Peaked hill without a triratna in the centre. on the left and a tree in railing on the right. No river.

Variety 8

Obv: Same as above.

Rev: Peaked hill without a triratna in the centre. Tree in railing on the left and on the right. River below.

Variety 9

Obv: Same as above.

Rev: Peaked hill in the centre without a triratna. on the left and tree without railing on the right. River below.

Variety 10

Obv: Same as above.

Rev: Peaked hill in the centre without a triratna. on the left and tree without railing on the right. River below.

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Variety 11

Obv: Same but a cluster of dots behind the deer.

Rev: Peaked hill in the centre topped by a triratna. on the left and tree in railing on the right. River below.

Variety 12

Obv: Same. Cluster of dots behind the deer.

Rev: Peaked hill without a triratna in the centre. on the left and tree in railing on the right. River below.

Variety 13

Obv: Same with the cluster of dots behind the deer.

Rev: Peaked hill topped by a triratna in the centre. Tree without railing on the left and on the right. River below.

Variety 14

Obv: Same with the cluster of dots behind the deer.

Rev: Peaked hill topped by a triratna in the centre. on the left and tree without railing on the right. No river.

Variety 15

Obv: Same and cluster of dots.

Rev: Peaked hill not crowned with a triratna in the centre. on the left and tree in railing on the right. River below.

Variety 16

Obv: Same and cluster of dots.

Rev: Peaked hill uncrowned by a triratna in the centre. on the left and tree without railing on the right. River below.

Variety 17

Obv: Same and cluster of dots.

Rev: Peaked hill topped by a triratna in the centre. on the left and tree without railing on the right.

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Variety 18

Obv: Same and cluster of dots.

Rev: Peaked hill topped by a triratna in the centre. on the left. Tree in railing on the right.

Variety 19

Obv: Same and cluster of dots.

Rev: Peaked hill topped by a triratna in the centre. on the left and tree in railing on the right. River below.

Variety 20

Obv: Same and cluster of dots. Also a vase above the back of the deer.

Rev: Peaked hill topped by a triratna in the centre. On the left and tree without railing on the right. River below.

Variety 21

Obv: Same with cluster of dots and vase.

Rev: Peaked hill topped by a triratna in the centre. on the left and tree in railing on the right. River below.

Variety 22

Obv: Same. Vase above the back of the deer. O replaces the cluster of dots behind the deer.

Rev: Peaked hill topped by a triratna in the centre. On the left is an upside down tree in railing and on the right. River below.

Variety 23

Obv: Same & O. Vase above the back of the deer.

Rev: Peaked hill topped by a triratna in the centre. On the left is the tree in railing and on the right is River below.

Variety 24

Obv: Same and O. Vase above the back of the deer.

Rev: Peaked hill topped by a triratna in the centre. Tree in railing on the left and on the right. River below.

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Variety 25

Obv: Same and O. Vase above the back of the deer.

Rev: Peaked hill topped by a triratna in the centre. On theleft is the tree in railing and on the right is River below.

Variety 26

Obv: Same and O. Vase absent.

Rev: Peaked hill topped by a triratna in the centre. On the left is the tree in railing and on the right is River below.

Variety 27

Obv: Same but without O. Vase above the back of the deer.

Rev: Peaked hill topped by a triratna in the centre. On the left is the tree in railing and on the right. River below.

Variety 28

Obv: Same and vase above the back of the deer.

Rev: Peaked hill topped by a triratna in the centre. On the left is the tree in railing and on the right is . River below.

Variety 29

Obv: Same and vase above the back of the deer.

Rev: Peaked hill topped by a triratna in the centre. on the left and an upside down tree in railing on the right.

Variety 30

Obv: Same and vase above the back of the deer.

Rev: Peaked hill topped by a triratna in the centre. On the left is an upside down tree in railing and on the right is .

Variety 31

Obv: Same and vase above the back of the deer.

Rev: Peaked hill topped by a triratna in the centre. on the left and tree on the right. River below.

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Variety 32

Obv: Same and vase above the back of the deer. Naga symbol above the head of the deer.

Rev: Peaked hill topped by a triratna in the centre. on the left and tree in railing on the right. River below.

Variety 33

Obv: Deer to right in front of a female figure standing with the left hand akimbo.

Rev: Peaked hill topped by a triratna in the centre. on the left and tree in railing on the right. River below.

Variety 34

Obv: Same as above.

Rev: Peaked hill topped by a triratna in the centre. On the left is the tree in railing and on the right is . River below.

Variety 35

Obv: Same as above.

Rev: Peaked hill topped by a triratna in the centre. on the left and tree without railing on the right. River below.

Variety 36

Obv: Same as above.

Rev: Peaked hill topped by a triratna in the centre. on the left and an upside down tree in railing on the right.

Variety 37

Obv: Same as above.

Rev: Peaked hill topped by a triratna in the centre. On the left is an upside down tree in railing and on the right is . River below.

Variety 38

Obv: Same as above.

Rev: Peaked hill topped by a triratna in the centre. An upside down tree in railing on the left and on the right. A vase slightly to the left of triratna.

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Variety 39

Obv: Same as above.

Rev: Peaked hill topped by a triratna in the centre. Tree without railing on the left and on the right. River below.

Variety 40

Obv: Same and above the back of the deer.

Rev: Peaked hill topped by a triratna in the centre. on the left and tree without railing on the right. River below. above the triratna.

Class II

Essential feature - Deer standing to left facing a female figure standing with the left hand akimbo and right hand raised occasionally holding a Lotus.

Variety 1

Obv: Deer to left facing a female figure standing with the left hand akimbo and holding a lotus in the raised right hand. A vase above the back of the deer.

Rev: Peaked hill topped by a triratna in the centre. On the left is the tree in railing and on the right is . River below.

II

In addition to the above, the hoard contains quite a few other coins which cannot be adequately classified owing to the want of requisite number of symbols. However, they are of considerable interest to a student of numismatics as they bear some features distinct from those notified on the above coins or some strange, often inaccurately carved, legends.

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Chronological placing of a coin, i.e. ascribing a probable date to a coin on the basis of the paleographic data, will be absurd as faras this hoard is concerned. This is because very frequently on the same coin we may find two forms of a single letter in case the letter is repeated in the legend and that even in different coins while the other symbols etc. remain an exact replica, the forms of the letters vary with an exasperating frequency. What can be said, at the most about this phenomenon, is that the shape of letter to be inscribed depended totally on the fancy of the die engraver.

So far I have not been able to count exactly the number of die variations noticed on the coins in the present hoard. However, as noted above, the hoard contains no less than 41 varieties which obviously were minted from different dies. In all likelyhood many other coins were also struck from different dies which are yet to be counted from close observations of the coins. Unfortunately, not a single die meant for striking Kuninda coins which would enable us to know its metallic composition, has been found, nor are we sure whether the coin blanks were properly annuled before for striking. We cannot be sure about the rough volume of the coins struck from a single die. Secondly, it is not possible to ascertain if a die was used to its fullest capacity. All the same, the die variations do indicate that money economy had percolated deep into the Kuninda state and it must have played an important role in the day-to-day life of the people.

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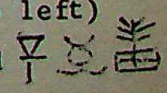
COINS OF THE MITRAS OF PUNJAB

DEVENDRA HANDA

There has been a prolonged debate over the attribution of a series of coins bearing Mitra-ending names to the Audumbaras. Cunningham published the coins of three Mitra kings - Bhanumitra, Ajamitra and Mahimitra along with the coins of the Audumbaras(1). Following Cunningham Smith also catalogued the coins of Mahimitra and Bhanumitra in the Indian Museum, Calcutta under the name of the Audumbaras(2). Allan followed suit but added the name of the Mahabhutimitra to the list(3). Some time back Nisar Ahmad made out the name of Agnimitra on a coin of the British Museum(4) and still another name, that of Indramitra, has been added to the list of Mitra rulers as a result of the discovery of Mitra coins in Ghuram (district Patiala, Punjab) excavations(5).

The Mitra coins are made of bill-on and copper(6) and are round in shape. The billon coins conform to silver Karshapanas of 32 rattis and their halves while the copper pieces conform with the copper karshapanas of 80 rattis and have been issued only in the denomination of quarter karshapana (i.e. 20 rattis). Their size ranges between 1.25 cm. to 2.0 cm. The coins are biscriptual having legends in Kharoshthi on the obverse and Brahmi on the reverse. Mitra coins generally show an elephant, with trunk hanging or upraised, with or without a rider, to left or right(7) on one side and a male figure standing to left, holding spear in right hand with a vertical wavy line at right on the other (8). The coin of Indramitra shows a humped bull walking to left on the reverse with male figure on the obverse and the coins of Bhanumitra divisible in three classes show the combinations of: (1) Male figure and elephant (2) Elephant (to left) and elephant (to right before tree in railing) and (3) Elephant and  on the obverse and reverse sides.

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Cunningham, as referred above, published the coins of the Mitra kings alongwith the coins of the Audumbaras which he had obtained at Pathankot. Some scholars think Pathankot to be the provenance of Mitra coins also(9). But this is not borne out by what has been written by Cunningham himself(10). Smith was, however, specific in telling us that the coins of Bhanumitra "are 'quite common' at the foot of Manaswal plateau, Hoshiarpur district"(11). Allan too, was conversant with the fact that "these coins come from the Punjab, notably from the Hoshiarpur district"(12). Cunningham's attribution of the Mitra coins to the Audumbaras and the impression that the provenance of the Mitra and Audumbara coins is the same have, however, led scholars propound the view that the Mitras belonged to the Audumbara stock(13) or they were the successors of the Audumbaras(14). R D Banerji was the first to object to the attribution of the Mitra coins to the Audumbaras as like the coins of Dharaghosha, Sivadasa and Rudradasa, the coins of the Mitras did not bear the name of the tribe(15). S K Chakrabortty, however, thought that a change in the constitution of the Audumbaras might have led to the introduction of a new form of legends and with the augmentation of the royal authority, the monarchs put only their own names omitting that of the tribe(16). Chakrabortty also thought it probable that the coins without the tribal name were of a later date than those bearing the tribal name. A C Banerji(17) and Jai Prakash(18) have controverted Chakrabortty's contention which otherwise also lacks any corroborative proof. Prof. Jagannath, too, has expressed himself against the attribution of Mitra coins to the Audumbaras(19). P.L Gupta holds the view that the above-mentioned Mitras were related to the Mitra kings of Panchala(20). Gupta's views have found favour with G B Sharma and Manmohan also(21). Dasgupta has rightly observed that Gupta and Mitra name-endings were commonly adopted in ancient times and that theMitra coins differ typologically from those of the Panchalas(22). The fabric, too, differs - Mitra coins have a round incuse while the Panchala coins bear square incuse. Also Mitra coins are biscriptual whereas Panchala coins are monoscriptual.(23). Had the above-mentioned Mitras belonged to the Panchala lineage, the coins of the Panchala Mitras must have come to the Punjab in good number, but this is not the case. Recently, Nisar Ahmad has

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analysed the whole issue and tried to prove we must say fairly satisfactorily, that the Mitras who issued the coins under discussion "neither belonged to the Audumbara tribe nor to the Panchala dynasty"(24). Mitchiner, too, distinguishes them from the Audumbara coins(25). In spite of all this, Sharan has attributed the Mitra coins to the Audumbaras in a recent study, without advancing any new argument(26).

It must be noted that the coins of the Audumbaras have been found from Pathankot, Jwala Mukhi and Irripal (district Kangra) whereas the Mitra coins are known from district Hoshiarpur(27). It will, however, be wrong to conclude that they "ruled over a domain lying between Beas and Sutlej in Punjab"(28). We have already referred to the Mitra coins reported from excavations at Ghuram (district Patiala) in large numbers(29). We would also like to refer here the evidence of the excavations at Ropar situated on the southern bank of the Sutlej. Audumbara coins are said to have been recovered from the site in fair number(30) but actually Mitra coins are intended as no distinction was then made between the two coinages. This is borne out by Mitra coin(31) illustrated in the Plate(32) of coins which does not show even a single specimen belonging to the Audumbaras. A coin of Ajamitra of the Elephant-Human figure type with legends in Brahmi and Kharoshthi on the two sides was obtained from Ropar by Rodgers too(33). More recently, we have recovered a coin of Bhanumitra from Sunet (34) near Ludhiana. Though a single coin does not provide any irrefutable evidence yet the discovery of Mitra coins from Ropar, Ghuram and Sunet does indicate that they were in circulation not only between the Beas and the Sutlej but further south and were not at all related to the Audumbaras of Himachal Pradesh and the Panchalas of Uttara Pradesh. The opinion of Chakrabortty, Jai Prakash and Bela Lahiri that the Mitras may have succeeded the Audumbaras is also based on the erroneous belief that the provenance of the Audumbara and Mitra coins is the same. The palaeography of the Mitra coins too does not indicate a date later than that of the Audumbara coins(35).

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Footnotes:

(1) CAI, pp. 69-70, pl. IV.

(2) IMC, I, pp. 160-61 and 166.

(3) BMC, AI, pp. Lxxxvi, 122-28.

(4) JNSI, XXXIX, pp. 52 ff. It is, however, to be noted that the vowel mark with g does not seem to be i as it is attached to the letter on the left side in stead of the right hand side as we can see on the coins of Agimita (Agnimitra) of Kausambi lelonging to the same period.

(5) ND vol. III, Part II (December 1975), pp. 4 ff.

(6) Michael Mitchiner, Indo-Greek And Indo-Scythian Coinage, Vol 7, London, 1976, pp. 646-47. Nisar Ahmad (JNSI XXXIX, p. 52) refers to their brass coinage also.

(7) On the coin of Agnimitra (JNSI, XXXIX, p. 56; BMC AI, p. 126, pl. XV. 16) and a coin from Ghuram (ND. Vol III Part II No. 8, p. 14.

(8) BMC AI, pp. 125-27 pls. XV.13-23 & XLIII. 2-3.

(9) K K Dasgupta, The Audumbaras, p. 10; A Tribal History of Ancient India, p. 38.

(10) Cf. his own words (CAI. p. 67): 'The coins of the Odumbaras consist of 2 silver hemidrachms and 5 small square copper pieces. One of the silver coins, now in the Lahore Museun, was found in a field near Jwala Mukhi, in company with 3 silver pieces of the Kunindas and 28 Philopator hemi drachms of appollodutus. My silver coin was obtained in the Pathankot district and my 7 copper coins were all found in Pathankot itself. As they all bear the name of Odumbara their assignment is quite certain .....".

Obviously the coins mentioned here are all Audumbara coins and none belonging to any Mitra king.

(11) IMC, I pp. 160-161.

(12) BMC, AI, p. lxxxvi.

(13) D C Sircar (The Age of Imperial Unity, p. 162), K K Dasgupta (The Audumbaras, p. 15 and THAI p. 58); M K Sharan (Tribal Coins - A Study, pp. 251-55) etc.

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(14) S K Chakrabortty (AIN, pp. 161-62 and NS, XLVI p. 74); Jai Prakash (JNSI, XXVII, pp. 130-31) and Bela Lahiri (Indigenous States of Northern India, p. 222) etc.

(15) NS, XXIII, p. 248.

(16) Ancient Indian Numismatics, pp. 161-62 and NS XLVI, p. 74. He, however, did not think Bhanumitra to be an Audumbara ruler.

(17) JBORS, XX, pp. 168-69.

(18) JNSI, XXVII(2) p. 130.

(19) Comprehensive History of India, Vol II, p. 135.

(20) IHQ XXVII, pp. 198-199.

(21) ND Vol. III, Part II pp. 4-15.

(22) The Audumbaras, p. 15; THAI, pp. 57-58.

(23) Ibid.

(24) JNSI, XXXIX, p. 65.

(25) Mitchiner, op. cit.

(26) VIJ, XX, pp. 188-96.

(27) IMC, I, pp. 166; BMC AI, pp. Lxxxvi-vii and 125 ff.

(28) JNSI XXXIX, p. 66.

(29) ND, III Part II pp. 4-5.

(30) IAR 1953-54 p. 7.

(31) The Coin shows an elephant with rider and upraised trunk to left with a part of the Brahmi legend (of which ma is very clear) on the obverse. The male figure standing to left, holding a spear in right hand and a vertical wavy line on right are shown on the reverse.

(32) IAR 1953-54, pl. V-C.

(33) C J Rodgers, Report of the Panjab Circle of Archaeological Survey, Calcutta, 1891, p. 38.

(34) Its description is:

AE R, 1.6 cm., 1.75 mm 2.252 gm. = 34.8 grs. approximately.

Obv. Elephant to left, traces of Kharoshthi legend ..... ta sa.

(35) The Audumbara coins show letters with marked angularism and serif marks and therefore may even be slightly later than the coins of the Mitra.

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THE ORIGIN OF THE VIKRAMA ERA

THE EVIDENCE OF COINS AND INSCRIPTIONS

K WALTON DOBBINS

The Vikrama year, in most parts of India, begins with the month of Kartikka, and this month usually begins in the middle of the European month of October. The epoch of the era is October, 58 BC.

It is possible to make three preliminary assumptions about the Vikrama Era. First, it is a non-Indian type of reckonins. The most ancient indigenous eras, that is, the dating systems favoured by the practitioners of science and theology, were based on notions of cosmology and astrology. They were computations of the age of the universe and of world ages. Another type of early reckoning was dating from the death of a religious leader such as Mahavira and Buddha, but it is doubtful whether the idea for this kind of dating was inspired by knowledge of Hellenistic eras or whether it grew out of arithmetic computations concerned with sacred matters, such as predictions about the survivability of the creed.

Secondly, the medieval traditions about the origin of the era are fictitious. They are transparent attempts to graft the name 'Vikrama' onto an era which was in popular use. This name is a myth-making reference to Chandragupta II Vikramaditya (AD 376-414) who extended Gupta rule over the Malwa country, where the era was most prevalent, shortly before AD 400. The legend, the Kalakacarya Katha, glorifies an earlier Vikramaditya, son of Gardabhilla, who led the Malava people and expelled the Sakas from Ujjayini. To commemorate the event an era was started. The earliest known use of the name 'Vikrama' in a dated record comes from the year 794 of the era, which is AD 736/7. According to legend-makers these Sakas regained Ujjayini and founded their own

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era to celebrate. Thus, the legend connects both the era of 58/7 BC and that of AD 78 with the non-Indian tribe of Sakas, and despite its fictitious nature the legend does point to the non-Indian characteristics of the era and leads to our third preliminary assumption.

The era is a historical reckoning. This is to say, it is computed from an actual event. The models for this type of era are Hellenistic regnal datings which start with the accession of a king, such as Alexander and Seleukos, or dating from the foundation of a city such as Rome. In India regnal dating is known from Asoka's inscriptions, but there is no evidence for a popularly used 'Asoka Era' beyond the lifetime of that king. Similarly, the computation of time from the death of religious leaders, mentioned before as being used for scholarly purposes, was not used by society on a day to day basis.

So, the name 'Vikrama' was applied to the era rather late in its history. From 282 to 481 - AD 224/5 to 423/4 - the era was called Krita, and during the last twenty years of this period, from AD 403/4 to 423/4, it was called by both Krita and Malavagana. Names connecting the era with Malva continued in use down to year 936 or AD 878, and overlap with Vikrama names. The earliest Malava name, in AD 403/4, falls within the reign of Chandragupta Vikramaditya, and the use of 'Malava' or 'Malava people' as a name for the era seems to be connected at first with the Gupta king's conquest of that country. This name, in turn, seems to be responsible for placing the legendary Vikramaditya and the inauguration of the era in Malwa. It can be said, then, that the legend about the origin of the era does not look back farther than the time when the era was called by the name of the Malwa country.

And it is most likely that there were no earlier traditions about the origin of the era. Before it acquired its Malwa connection the era was called Krita, which is simply a calendrical designation indicating that the years of the reckoning begin in the month Karttika or Krttika. It had no political, religious or legendary significance. Its use was

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strictly utilitarian, and its true origin had been forgotten.

It is widely agreed among students of the problem that the earliest known records dated in this era are a group of Kharoshthi inscriptions which mention the name Aya or Aja, the Prakrit form of the king's name on coins of Azes. There are six such inscriptions, five of which have legible dates, namely 63, 74, 77, 134 and 136, corresponding to AD 5, 16, 20, 77, and 79. Three of these inscriptions attach titles to the name Azes, and the earliest is dated in the year 63 of the deceased King Azes (maharayasa ayasa atidasa). This is an unusual dating formula, to specifically state that the year belongs to a dead king. This could mean that there was no reigning great king at the time of the engraving, or the authority of the king was being challenged. The next two inscriptions also speak of Azes in the past tense. Year 74 is of the Great King Azes of former times (maharayasa mahatasa ayasa purvakatisa), and year 77 is dated to King azes of past time (maharajasa ayasa vurta-kalasa). For at least 15 years, from AD 5 to 20, in Bajaur (which seems to be the provenance for these three inscriptions) records were dated in memory of a dead Azes. Remaining epigraphs which mention Azes have no titles. This is clear evidence that in the later inscriptions 'Azes' is the name of an era based on the regnal years of King Azes.

It is interesting to note that the last inscription which gives a title with the name of Azes is dated only three months before the beginning of the first year of Gondophares as known from the double-dated Takht-i-Bahi record of year 103. (This, of course, is assuming that the Gondophares calendar year also began with the month of Kartikka.) It is easy to speculate that titles ceased to be connected with Azes when another great king came on the political scene.

All the Azes inscriptions give a range of dates over a period of 75 years, from 63 to 136, or AD 5 to 79. This interval corresponds with the early Kushana rule in the Kharoshthi region, and three other

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inscriptions from this area with dates in this range can be assigned to the same era. These are year 102 from Mount Banj, year 103 from Takht-i-Bahi which is regnal year 26 of Gondophares, and year 122 from Panjtar belonging to the reign of a Great King Gushana. A Brahmi inscription of Sodasa from Mathura is dated in year 72 and is an Azes Era record of AD 14/15. This inscription attests to the spread of the era's use from the Kharoshthi region in the direction of Malwa where Chandragupta and the legend-makers found it. The latest known Azes date is a year and four months later than the beginning of the Saka Era of AD 78, and the introduction of this latter one may explain the absence of later records in Kharoshthi using Azes dates. It is 146 years before the era reappears in Rajputana with its calendrical name.

Having established the earliest name of the era our attention turns to Azes the person. This king is otherwise known only from coins. A group of coins with the names Azes and Azilises are commonly arranged in sequence as belonging to Azes I, Azilises and Azes II. The general sequence of types makes this arrangement seem natural and reasonable, but van Lohuizen- de Leeuw still felt justified in arguing that there was only one king who issued these coins, not three, with 'Azilises' being a long form of the name 'Azes'. Our interest in this is not whether she was right in arguing for one king, but whether the usually accepted sequence of the types through three successive groups is correct.

In my own study of these coins the accepted general sequence was found to be indisputable, but the detailed progression from issue to issue was a troublesome problem. The pattern of occurrences of Kharoshthi control marks on the coins did not always conform to the transitions of names and types, so this nagging inconsistency was attributed to insufficient evidence. However, taking control marks and monograms as the primary criteria for arranging the coins, and the king's name and coin-type as secondary keys, gives us interesting results. On one series of silver coins the control marks fall into four groups:

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1) one on the reverse, 2) two on the reverse, 3) one on the obverse and one on the reverse, 4) two on the obverse and one on the reverse. The two types of coins depict either Zeus or Ardoxsho (usually called the Goddess with Lamp) on the reverse. Arranging the control marks and monograms together gives five periods. The first two have Azes I/ Zeus, the third is Azilises/Ardoxsho, the fourth has both Azes I and Azilises with the Ardoxsho type, and the last again has only Azilises. Without doing extreme violence to the general sequence of the kings this series reveals important insights into their history. Some coins of Azes I are later than the first issues of Azilises. The change in type from Zeus to Ardoxsho was due to the introduction of Azilises' coinage, but later coins struck in the name of azes are of the goddess rather than Zeus type. This suggests that predominance was accorded to Azilises even though Azes was still reigning. In another series a joint issue has always been assigned to Azilises and Azes II, but on stylistic analysis the coin belongs at the beginning of the Azilises coinage, not at the end, and the Azes in question, though named on the reverse where it has been supposed was the place of the junior partner, is Azes I, not Azes II. We could argue, then, that these coins belong to one king with two variants of the same name. But after these issues we have a series of Azes coins with changes in style and type which distinguish them from both the earlier Azes and Azilises strikings. This and other numismatic criticisms lead me to accept the division among three kings, but while there is an overlap of the Azes I and Azilises coins there is no clear evidence for joint coinage of Azilises and his successor.

The evolution of metrology and style of coins assures us that the Azes I coinage was issued at some considerable time before that of Gandophares, mentioned in year 103 of the Azes Era; and the deceased king Azes of years 63, 74 and 77 may be Azes II. The era, it is reasonably certain, is the regnal reckoning of Azes I, who therefore began his reign in October, 58 BC. In the latter part of his reign he associated Azilises, presumably his son, in his rule, and gave his associate the right to strike his own coinage. There are indications that the junior associate

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was more equal than the senior member of the joint rule.

Here our story might end except for some striking parallels with events happening elsewhere at the same time. In about 58 BC - the exact date is not known, but all recent studies give 58 or 57 - phraates III of Parthia was murdered by his sons, Orodes II and Mithradates III. These two then fought a civil war ended by Orodes' capture and murder of his brother. The coins of Orodes and Mithradates have the imperial title 'king of kings' which had not been seen on Parthian coinage since the time of Mithradates II. Orodes associated his son, Pakores, in his rule - the date is uncertain, but Pakores was leading a victorious army by 50 BC - and the son struck coins with the same imperial titles as his father. The coins show no hint that Pakores was a junior partner in ruling the empire. In 39 BC Pakores was killed in a battle with the Romans, and Orodes, distraught, it is said, at the loss of his son died about a year later. Orodes was succeeded by Phraates IV (38/7 - 3/2 BC) who had a long reign of 35 years. The latter's first two successors, Phraatakes (3/2 BC - AD 4/6) and Orodes III (AD 5/6 - 7/8) were unpopular, and it was during this time that regional commanders such as the Gondophares group successfully broke away from the Parthian Empire.

As far as the evidence allows, these events exactly parallel the history of the Sakas in Sakastan, Gandhara and Taxila. If Azes I is identified with Orodes, Azilises with Pakores, and Azes II with Phraates IV we have the explanation for why this Azes group who struck a large body of magnificent coinage with the imperial title 'king of kings' suddenly appeared, just as suddenly disappeared, and are not known from any literary sources. These names, which are military titles in the Saka language, are reign-names used by Parthian kings to reinforce their authority over subject Saka people. This also explains why Indravarma dated his inscription in the year 63 of a dead king - he did not recognize Phraatakes or Orodes III of Parthia as his overlord. And we see why the coinage of Azes II continued to be issued as imitations by satraps such as Indravarma and Aspavarma. These satraps did not give allegiance to the Parthian emperor, but such allegiance

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was the basis for their right to rule. They therefore perpetuated the authority of a dead lord.

In conclusion, then this hypothesis argues for a dramatic episode of India's contacts with the West in the ancient period. The Vikrama Era is the regnal reckoning of Orodes II, and the event which determined its beginning month and year is the murder of Phraates III of Parthia.

Inscriptions of the Azes Era

AD	AZ	Record
5, Nov	63, 16 Karttika	Avaca Casket
14/15	72	Mathura Br of Sodasa
16, Aug-Sept	74, 3 Asvayuj	Ramaka Stone
20, Aug	77, 24 Sravana	Apaca Casket
?	20 + ?	Shahdaur
44/45	102	Mount Banj
46, Apr-May	103, Vaisakha	Takht-i-Bahi
65, July	122, 1 Sravana	Panjtar
77, Aug	134, 23 Sravana	Kalawan Copper-plate
79, July	136, 15 Ashadha	Dharmarajika Scroll

Sequence of Sakastan Coins

Phase	Azes I	Azilises
I, 1	Zeus	
II, 2	Zeus	
III, 2		Ardoxsho
IV 3	Ardoxsho	Ardoxsho
V 4		Ardoxsho

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ROME IN INDIA

R J HEBERT

> "From time immemorial, in spite of her isolation created by mountains and seas, India has maintained close cultural, commercial and diplomatic contacts with several other countries of the world. There has (sic) been many ups and downs in the progressive development of these contacts but they never ceased to exist completely"(1)

Early Indian Contacts with Western Asia

Contacts before Roman(2) times between India(3) and the West go back into earliest antiquity, even into the Old(4), Middle (middle paleolithic)(5), and Late (Mesolithic)(6) Stone Age Cultures, and the period of pre-Harappan village cultures of Baluchistan and Sind(7).

From about the second half of the third to the first half of the second millenium B.C., a civilisation dubbed Harappan flourished on the banks of the Indus River(8). Evidence exists that they had commercial contacts with Sumer, Elam, and Iran(9). This evidence consists of implements and other objects(10), the distribution of various metals and ores(11) other objects(12) and beads and jewelery(13), and suggests that "the Sumerians may have played a role in the earliest stages of Indus civilization analagous to the one they played in Egypt", and that "seaborne contact with Sumer may have provided ready-made models and ideas which the Indus peoples could adapt to the peculiarities of their local cultural tradition."(14) Based on the close resemblance of pottery and art motifs of the Harappan peoples with that of Iran, Syria, and even Crete, it would appear that Middle Eastern agriculture and animal husbandry formed the basis of their civilisation.

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Between 1500 and 1200 B.C , successive invasions of Aryan(15) charioteers and bowmen moving southward from eastern Iran to the Indus Valley resulted in the destruction of the Harappan civilization(16) and a shift of Indus urbanization towards the Ganges Valley as a result of migration from the Punjab(17). Because of this Aryan incursion, all but sporadic commerce between India and the West was interrupted for some centuries(18).

A few references in the collection of hymns known as the Rig Veda, the oldest stratum of surviving Indian literature, seem to imply some knowledge of sea-going trade with distant lands, but this was probably very small in quantity and of not much importance(19).

There also exists Persian knowledge of India in the Avesta, the sacred writings of the ancient Zoroastrian religion(20).

Other evidence for these Persian contacts include linguistic similarities between the Vedas and the Avesta(21) and between Sanskrit and other languages of the Indo-European group(22), similarities in belief between the Vedic and other Indo-Iranian peoples(23), similarities between the Vedic and Avestan gods(24) and between Vedic and Avestan legends(25).

Evidence also exists for Indian contacts with Semitic peoples of Mesopotamia and the Middle East, namely foreign words of Semitic origin in Vedic literature(26), and similarities between Vedic and Babylonian mythologies(27). In addition, evidence of commercial contacts exist from archaeological finds(28).

Evidence for India's contacts with and/or knowledge of several countries during the period of the epics can be found in the Ramayana and the Mahabharata(29), e.g., the countries known as Yavana and Roma(31).

Asthena(32) notes that the period between the Rig Vedic Age and the rise of the Mauryan Empire has often been referred to as the

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"Dark Age" of Indian history, mainly because of a lack of a sufficiently large amount of material for reconstructing its course as well as its details. The meager archaeological evidence available in foreign sources, especially West Asian, points to a limited amount of commercial and cultural intercourse between India and her western neighbours.

It will be of interest to this audience to note that it is at this time - ca 600 BC during the Age of the Janapadas of the pre-Maurya period - that the numismatic history of India begins. It is at this time that there were made the silver bent bar coins(33) and the silver and copper punch-marked coins that Mitchiner(34) states were used

> "by some dozen states distributed along the indus, Narbanda, and Ganges River systems, and along the eastern seaboard of central India. Distinct regional tendencies are apparent with the northern and north-western states striking their coins to a heavy weight standards and those in the south and east using a light standard while within each of these two groups the most easternly states used a coin type composed of a number of punch marks and the western states used a single punch coin type. All four forms of punch-marked coinage were struck by different states during the sixth century before Christ.....".

These foreign relations during the period of early Indian historical culture were with (a) Egypt which imported "royal linen," ebony, ivory, cotton goods, axes, adzes and swords, indigo, and tamarind(35); (b) Judaea where first century century millenium Hebrew texts(36) refer to the port of Ophir - identified with Sopara, the Suparake of the west coast of India near Bombay, and described as a market for gold, spices, precious stones, ivory, apes, and peacocks(37); (c) Assyria which imported from overland Indian animals such as elephants, apes, Bactrian camels, birds (such as the peacock), precious stones, pearls, timbers, striped clothing, various spices, and cotton(38); (d) Persia which in the fifth century B.C., during the reign of Cyrus the Great(as King of Persia 550-529 B.C), invaded India bringing both Bactrians and Indians under his rule, and which maintained close contact with India from the time of Darius I Hystaspis (as King 521-486 B.C) until the time of Darius III

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Codomannus (as King 336-330 B.C)(38).

Of interest to this group is the fact that it was at this time that foreign coins first entered India. Asthena(39) tells us that

> "Persia coins were in circulation in the region of Sind and Punjab. The 'darics' (Persian gold coins) are rare in India, but 'sigloi' or 'shekels'(silver coins) have been discovered in a large number. Some of the 'sigloi'discovered bear peculiar countermarks on both sides. According to some numismatists and historians, they resemble the countermarks of indigenous punch-marked coinage. Some marks of these coins are even similar to Brahmi and Kharoshthi letters. Scholars like Rapson think that both the types of these coins were made in India and were current side by side".

(e) Babylonia where Indian merchants had a colony that continued to exist there in a later period also, and which imported main ly precious stones, the Indian hound, the wood(40). After the decline of Babylonia, Arab merchants, apparently from southern Arabia, continued the trade, probably transshipping goods to Egypt and the eastern Mediterranean(41); and (f) Greece which in the person of Alexander III the Great(356-323 B.C) crossed the Hindu Kush, occupied the district of Kabul, crossed the Indus in the spring of 326 B.C., crossed the Jhelum (Hydaspes), and finally left India in 325 B.C., leaving behind several Greek settlements at Pushkalavati, Aronos, etc.,three satrapies under a Macedonian satrap in the areas west of the Jhelum, and three vassal states ruled by Indian Kings, Puru or Porus (d. 321? B.C), Ambhi, and the King of Abhisara(42).

Of interest to us is the first and unique find of two silver Greek coins in the excavations at Bhir Mound at Taxila, which testify to this short lived foreign incursion(43). In addition, the coinage of Saubhuti (sophytes) who was ruling in the Punjab at the close of the fourth century B.C is purely Greek in style.

Furthermore, some legends, ideas and philosophical concepts which are common to both Greece and India suggest that at this time there

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were mutual borrowings in many fields, especially those of religion and philosophy(45).

The disappearance of the Greeks from India was followed by the rise of the Mauryan Empire in the last quarter of the fourth century B.C(46), some of whose kings brought much of India under their control and established close diplomatic and commercial relations with countries of the west such as Persia, Mesopotamia, Greece and Egypt(47).

The period of Mauryan culture was a turning point in the extension of Indian culture to other countries and took place through the mutual exchange of embassies, the sending forth of Buddhist missionaries, and the travels of zealous pilgrims, enterprising traders, and casual travellers(48). These cultural contact were with (a) Egypt and the Hellenistic World which sent the ambassador Dionysius from Ptolemy II Philadelphus (as King 285-246 B.C) to the Mauryan Court(49). Political embassies, cultural missions, commercial relations, possible Indian art motifs in Egyptian sculpture(50), the partipation of Indian men, women, and animals in Egyptian royal processions, the dedication of a temple to a Greek god by an Egyptian, and the close similarity between some Mauryan and Ptolemaic economic organizations strongly support the existence of close Indo-Egyptian contacts during the period(51).

The numismatic evidence comes from early Seleucid coins in the names of Seleucus I Nicator (as King 305-280 B.C) and Antiochus I Soter (as viceroy of the East 280-261 B.C) which have been found on Indian territory (52) and which are believed to have been issued by the Greeks for these Indian territories(53). The Indian elephant on the reverse is believed to commemorate a treaty between Seleucus I and Chandragupta Maurya, known in Greek as Sandrocottus (322?-298 B.C)(55); (b) Iran in the areas of art, architecture and town planning, court life and administration, script, edict, numismatics, and customs and manners of the people(56). Concerning the numismatic evidence, Asthena notes that

"The achaemenid meaure of money, a talent, also seems

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> to have been borrowed by the Indians from Iran(58). According to Rawlinson, the Maurya did not have a regular coinage of their own, so the Persian coins were in free circulation in their dominions(59). But recent excavations at several sites have proved that coins were minted in India earlier than the Mauryan period(60) going back to the fifth century B.C if not earlier. It is very likely that Indian coinage in its early stage was influenced by the Persian system of coinage. The persian Sigloi must have been the legal tender in the Persian satrapies in India(61)".

McNeill(62) has summed up India's history to this point in the following words:

> "India's development to the time of Alexander's invasion seems to have pursued lines laid down at the beginnings of the fifth century or before. With the new intimacy between India and the Hellenistic world that resulted from Alexander's venture, and with the rise of the "philhellenic" Mauryan dynasty within India itself, new though still comparatively superficial, foreign influences upon India became apparent. The royal court patronized a westernizing art style and perhaps promulgated Greco-Iranian patterns of administration and political theory. Beyond the courtly circle, however, foreign influence was probably trifling until long after Mauryan times, when prolonged and more massive military and commercial contact with the Mediterranean world allowed a deeper penetration of Hellenistic and Roman influences into Indian society as a whole".

Roman Replaces Greece

About 200 B.C., the military and political expansionism of Hellenism, so phenomenal in the fourth and third centuries B.C., began to lose momentum(63) as a new actor entered the stage of history.

The early phases of the rise of Rome may be conceived of as an instance of a successful reaction against foreign pressure. The prelude to Roman supremacy in Italy was the long and difficult wars with the Samnite Confederacy (343-290 B.C). Other wars followed, and by 265 B.C all of Italy south of the Appennines recognized Roman leadership(64).

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The first and second Punic Wars(264-202 B.C) made Roman an Empire(65)

However, decisive changes were taking place in Roman Society that would have far-reaching political consequences. Peasant soldiers had been pried loose from their ancestral farms, and an idle urban proletariat began to drift into Rome. At the same time, senators and tax farmers who collected provincial revenues became rich beyond all Roman precedent. As Roman society underwent an extremely rapid economic differentiation, the newly rich of the new capital began to feel the attraction of the luxuries and refineries of Greece. Old style Romans such as Cato the Censor(234-149 B.C) were horrified as Hellenistic urban styles took root. The definitive conquest of Greece took place in 146 B.C when legionaries sacked Corinth, bringing home the spoils, including numerous art objects. Thus Rome came to be enmeshed in the same siren attractions which she had originally despised(66). In Horace's famous phrase, the Greeks, captive, took the victors captive(67).

In 128 B.C., just eighteen years after the Roman conquest of Greece, the Chinese diplomat Chang-ch'ien travelling westward to the valleys of the Oxus and Jaxartes, discovered the easternmost fringes of western civilisation. As a result, in 101 B.C., Chinese armies occupied a string of oases extending to the Jaxartes which resulted in the establishment of a regular caravan route between Syria and China - the "Silk Road"(68).

At almost the same time, significant developments were taking place in the maritime trade routes of the Indian Ocean. As far back as the first millenium B.C., piracy along the shore lines of the Persian Gulf and the Gulf of Oman had made coastal maritime trade with India a risky business. Despite these dangers, seamen in the service of Ptolemy VIII (or VII or IX) Euergetes (as King 144-116 B.C) had made a voyage all the way to India in 120 B.C. The conquest of Egypt in 30 B.C transferred control of the Indo-Egyptian trade route to Rome. With all the excess wealth from their conquests, the Roman aristocracy began to

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look to the East for luxuries. In the process of commerce, an extra - ordinary transfer of precious metal took place, and a remarkable two-way diffusion of technology began(70).

Roman watermills and the techniques of glass production seem to have been the best in the world at this time. By the first century B.C, Alexandria was pre-eminent in these techniques, and Roman glass was eagerly sought for in India(71). In addition, Roman military sciences, especially siegecraft and fortification, commanded considerable reputation in India(72). It is also quite possible that Roman ships introduced a new level of marine architecture into India waters which made possible the remarkable overseas expansion of Indian culture in the early post-Christian centuries(73). Indian steel attained a peculiar quality that commanded a market in the Roman Empire that could not be duplicated there(74), while Indian silks, muslims precious stones, and spices were in great demand by Roman matrons(75).

Discovery of the Monsoon

Shortly before the beginning of the Christian era, a Greek named Hippalos(76) learned how to sail directly from Arabia across the open sea to India by catching the south-west summer monsoons, the "Eastern winds". According to Pliny(77), this could reduce the ocean voyage to forty days(78).

As a result of this important discovery which occurred before the time of Roman hegemony transport between the Mediterranean and the Indian Ocean become vastly cheaper as well as faster than the land-route that had come into being with Chang Ch'ien's discovery, and a greatly enlarged flow of goods between these regions funnelled through Alexandria(79). This long distance trans shipping of goods kept Alexandria prosperous even when its immediate hinterland in the Nile Valley suffered economic retrogression under Roman rule(80).

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Two areas which formerly had been marginal to the western world now became central points on the new trade routes, South India and the river valleys on either side of the Hindu Kush. McNeill(81) suggests that

> "It is probably no coincidence that both these regions became the seats of important cultural innovations. In the following two or three centuries Southern India seems to have been the principal seed bed for the cults of Shiva and Vishnu, which between them gave a distinctive character to subsequent Hinduism, and Mahayana Buddhism probably arrived at its distinctive form in the region of the Hindu Kush."

One wonders to what extent the pantheon of Roman and Greek gods brought to India by Greek and Roman traders and which appeared on their coins served as a leaven to these innovations(82).

The Periplus

The Periplus Maris Erythraei(83) the Circuit of the Indian Ocean, a fascinating anonumous work originally compiled in an unscholastic Greek by a Roman merchant captain or pilot from Egypt, probably Alexandria or Berenice, is a practical merchant handbook which gives in about twenty pages of modern printed text a clear, accurate, and comprehensive picture of Roman trade written "after several year's travel between the accession of Nero and A.D. 100 (84)", probably about 70 A.D.,"possibly as a report on Vespasian's instructions for the imperial government on the whole of Egypt's eastern trade(85)". It gives "details of harbours, marts, anchorages, tides, imports, and so on(86)". Through the eyes of this anonymous writer we travel from the port of Myos-hormos (Berenice) in Egypt to the mouth of the Indus and then travelling south visit India's western coastal regions, especially the port towns, sixteen of which are singled out as emporia, presumably trading posts in some special sense.

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Apparantly the writer knew "the island Palaesimundu, called by the ancients Taprobane," today Sri Lanka, by hearsay(87), and the markets of east India were known to him only through secondhand reports(88).

Of the many flourishing ports mentioned, the three chief ones were Musiri in the Chera country(Kerala), known to the Greeks as Musiris, residence of the ruler of Kodungar or Nelcynda and "represented today by Cranganore on the river Periyar(89)" Kolkai, Greek Colchoi, in the lands of the Pandyas, not far from modern Tuticorin, famous for its pearl fisheries which were worked by condemned criminals(90); and Kaviripattinam, the chief port of the Chola country, built according to a late Sinhalese source by soldiers captured by the great king Karikalan in a raid on Sri Lanka, now a decaying fishing village silted up by mud at the mouth of the Kaviri(91).

An important later source for the trade of Tamil lands is the text and maps which ordinarily go under the name of Geographia(Geographike hyphegesi, Guide to Geography)(92) by the most influential of the geographers of antiquity, Ptolemy of Alexandria(active A.D.127-160)(93).

Also important is the early Tamil poetry of the "Eight Anthologies" which look back to this period when the three kingdoms of Chola (the Coromandel Coast), Chera (Kerala) (Malabar), and Pandya (the southern tip of the Peninsula) were in a state of almost constant warfare(94).

Arimakedu

In the first century A.D., when Roman trade with India was at its height, regular trading stations inhabited by merchants from Roman territory sprang up along the Indian coasts(95). Such a trading station was Arimadeku(96), "the native name for a waterside tract within a few hundred yards of the Bay of Bengal two miles south of Pondi-Cherry," the former capital of French India, which almost certainly equates etymologically with the "Podouke" of the Periplus and the "Podouke

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emporion" of Ptolemy(97); the Pudu-Chcheri or "New Town" of the Tamils. Here were found many shards of early first century A.D. Italian red-glazed "Arretine" amphorae and other wares, mass produced in western factories. The site appears to have had the outward appearance of a small Roman provincial town, complete with forum and temples. It therefore seems obvious that as long ago as the first century A.D., there were, in Wheeler's words, "a few pukka sahibs"(98) in those parts who brought with them as much of their native way of life as possible, including works of art(99)

Roman Coins in India

During the first and second centuries A.D when Roman trade in India was going on, the people whom the Roman traders were likely to meet were (a) the Sakas (Scythians) in western India from the first century B.C to the third century A.D(100); (b) the Kushanas in northern India and Central Asia from the first to the third centuries A.D(101); (c) the Satavahanas (Andhras) in the northern Deccan from the first century B.C. to the third century A.D(102)(their feudatories, (d) the Andhrabhrityas, literally, "the servants of the Andhras", governed the southern provinces of the Andhra realm)(103); and in the south (the Narmada or Narbada river was long regarded as a symbolic boundary between north and south) (e) the Cheras who controlled the sea coast from Calicut to Cape Comorin(104) (f) the Pandyans who were centered in the regions of Madura and Tinnevelly (105); and (g) the Cholas who held territories from the Vagai to Nellore (106).

Evidence of the Roman presense in India includes Imperial Roman Coinage. Numerous hoards(107), votive deposits(108), and stray finds (109) of Roman gold aurei and silver denarii and copper first and second bronzes(110), their Indian imitations(111), and clay "bullae" imatating coins(112) have been found from at least 1775(113) in India (114) and Sri Lanka(115), and still turn up in considerable mass at fairly frequent intervals(116). Even though new finds are frequently

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made the pattern described by Wheeler remains largely unaltered(117). These coins are found in "three different geographical areas, in each geographical area, conditions are quite uniform, but from area to area they vary considerably(118)". These finds give substance to the belief that Imperial Roman currency "circulated on a vast scale beyond even the imperial frontiers; it was indeed almost a world coinage(119)".

In an important work, Gupta(120) has summarized for us his observations concerning these remarkable series.

1. No coin finds of the pre-Augustan (before 27 B.C) or Republican periods are known so that it would appear that Rome had no direct contact with India in the Republican period(121).

2. Finds in which coins of rulers later than Augusts (27 B.C-A.D 14) are not known are confined to the Coimbatore district, Madras town and Chitaldurg in Mysore(122).

3. Finds which contain only coins of Tiberius(A.D 14-37) and his predecessors indicate an expansion of Roman contacts in the former's time of the sort where trade flourished "not only in Madras state but had extended in the entire peninsula from the west to the east and at least up to Karimnagar in the north and its impact had reached up to Ganjam in Orissa, if not the actual trade(123)".

4. This trade continued to flourish in the time of Claudius (A.D 41-54) (124).

5. Coin finds which were set down in the time of Nero (A.D 54-68) or a little later indicate that by then Roman trade influence covered the southern peninsula(125).

6. Since there are virtually no coin finds of Roman coins with Emperors later than Nero, it is likely that the "tempo of Roman trade lasted for only about a three-quarters of a century" till the end of the first

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century A.D(126).

7. This pattern of coin finds suggests that "Roman trade in the first century A.D. was carried out from the ports of Malabar .... on the western coast and f-rom the ports of Coromandel .... on the eastern coast"(127).

8. Yet, it should be emphasized that most of the finds are centered in the district of Coimbatore, thus indicating that this area had intense trade relations with the Romans(128).

9. It is surprising that no second century finds of Roman coins are known from the Malabar coast and the central part of the peninsula, and only two finds from the Coromandel coast, suggesting that "Roman trade activities in the second century A.D. had shifted from the hands of the Cholas to the lands of the Andhras(129)".

10. The coin finds suggest that it is by no means certain that trade relations with the Andhras were carried on with the same intensity as they had been with the Cholas. Instead, trade relations which had begun in the first century A.D. "seem to have ended by the first quarter of the third century A.D (130)".

11. Despite the fact that both Sopara and Barygaza (Broach) are well attested as trade ports, first century coin finds have not been found within their home states of Gujarat and Maharashtra suggesting that in the time of the Periplus, "Roman traders were not coming to these ports of the north-western coast", but that "Indian ships were going to the Persian Gulf, the south coast of Arabia and the Red Sea coast of Africa from these ports", where trading with Rome was carried out(131).

12. With respect to India's land-route through Gandhara, since almost no Roman coins have been found in this region and in the north, it has been suggested by some writers(132) that the Kushanas melted down

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what reached them for their own use. Gupta suggests instead that "there was little direct land-route intercourse between India and Rome. The few coins that we know, not unlikely, might have come there through indirect channels ...(and) mean this contact (took place) only towards the end of the first century A.D., and it did not last beyond the mid of the second century A.D(132)".

13. The few small finds of third century A.D coins reported by Prinsep as found in the Gangetic plain are difficult to explain. Gupta suggests a link with Rome in this period via Tamralipti, the ancient port of the east in the Bay of Bengal," which was well connected with the interior by land routes(133).

14. Besides a few silver and gold coins of the fourth and fifth centuries A.D. from the Coromandel coast and the Visakhapottam district, a large number of copper coins have been found in the South India invariably in association with Arabic and Chinese coins, thus suggesting that these Roman coins were brought into Indian territory by Arab traders rather than by the Romans themselves(134).

Based on the points set forth above, Gupta concludes that

1. Direct Roman trade with India, centered on the Malabar and Coromandel coasts, began in the first century A.D(135).

2. Within the first century A.D., Roman trade activity had spread throughout the peninsula including the Deccan and the kingdoms of Chola and the Andhras with the center of activity in the Coimbatore region(136).

3. During the second century A.D., the focus of trade activity shifted from Chola lands to the port of Kaveripattinam on the northeastern coast with trade activity taking place in the kingdom of the Andhras(137).

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4. By the end of the first quarter of the third century A.D., the Arabs had replaced the Romans as commercial carriers(138).

5. In the fourth and fifth centuries A.D, Chinese traders met Arab traders on the eastern part of Bengal conducting an exchange of goods at Tamralipti(139).

6. It is doubtful if any direct trade took place via the land route of Gandhara, nor did Roman traders from the south come to the Gandharan trade centers(140).

At this point, we may well be asking ourselves why Roman traders were bringing Roman gold and silver to India in such enormous quantities. What function did this mass of precious metal serve -- an amount so large that it caused an outcry from contemporary writers(141).

Most of the authorities agree that it was used not as coinage but as bullion(142). In all of peninsular India there was no indigenous coinage to which the Roman aurei and denarii could be approximated(143). As a result the Roman precious metal which was, as Wheeler says(144), "already subdivided into known and stamped sub-units (coins) would .... facilitate the trader's accounting and at the same time carry prestige with the customer (145)". It was only in the time of Nero when he debased his coinage (A.D 63) and a restriction was placed on the export of bullion at the source that the flow of Roman gold and silver into India began to dry up, and a greater emphasis was placed on trade of manufactured good and raw materials(146).

One of the most noticeable features of all this Roman coinage found in India is the chisel cut that almost(147) always incises the obverse of the aurei, the side normally bearing the portrait and superscription of the reigning emperor. These incisions(148) are meant to cancel the Roman authority and are not meant to test to quality of the metal. Once the chisel cut had been applied, the local authorities "authenticated

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the pieces as their own authority symbols or testing marks" on the Roman pieces(149).

Did this brief two-way exchange of goods and ideas have any influence on Roman and Indian habits and institutions? Warmington(150) believes that "on the whole the answer must be no".

Possible avenues of future research

Given the present state of research concerning these Roman and Indo-Roman series, (I am thinking especially of Raschke's dissertation), the large numbers of coins that have come to rest in museums and government collections all over India, and the present directions that cross disciplinary research is taking plus the new technical advances available in such areas as metallurgy, pattern recognition, electronic data processing information retrieval(151) perhaps now is the time to call for a catalogue raisonee of the Roman coinage in Indian government collections. Fourteen years ago, the late Vladimir Clain-Stefanelli stated that he believed that

> "metal analysis should become a prerequisite and a routine requirement in descriptive works. Indeed, the correct composition of metallic objects must be established for cataloguing purposes. It is not sufficient to give a description and to indicate with varying degrees of accuracy the relative position of die axes, or to record the individual weights; as we proceed further in many series to comparative die studies, we also must consider of equal significance a better and exact knowledge of the composition of the matter studied".

Fortunately some of these suggestions have borne fruit to the extent that Numismatic Literature, the international abstract bibliography of the current literature in numismatics published by the American Numismatic Society has had to add, since December 1968, a section called Technology and Methodology in which we see the results of such wide-ranging techniques as neutron activation, X-ray fluorescence, lead isotope analysis, X-ray photoelectron spectroscopy, proton-induced

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emission, and beta-ray content. Interlaboratory cooperation is essential in such work since the difficulties in the way of accurate analysis are considerable(153). At the present time, enough work using some of these techniques has been done, particularly in the United Kingdom(154), on Roman coinage to provide comparative data for similar studies done in India. Questions to which it would be useful to have the answers would be the source of the ore used for the coinage(155) and the place of minting of the pieces, particularly of the pre-Neronian coinage. It would also be useful to know if the Roman pieces were struck especially for the India trade, and if later emperors continued using the types of earlier emperors on coinage that were sent to India.

To the new techniques mentioned above can be added those of statistics(156). There is some controversy, however, as to some of the results claimed. Also needed is what Colberd de Baeulieu calls "characteroscopy", or extremely detailed die analysis which will help in establishing die-linkages for the use of some of the statistical techniques touched on above.

Many of the techniques suggested above are already being used in India and it is hoped that in time, as high technology becomes available to those institutions with limited budgets, someone with access to all of the vast riches now lying in the museums of India will be induced to look into the phase of India's numismatic history when Rome was in India.

Footnotes:

(1) Shashi Asthena, History and Archaeology of India's Contacts with other countries from Earliest Times to 300 B.C., (Delhi, B R Publi--shing Corp. 1976), p. 1

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(2) By "Roman" and "Rome", I do not limit myself to the Latins of Rome or even Italy, but I take in Greece, the Levant, Egypt, and those parts of Arabia within the Roman empire that had contacts with India. We should keep in mind that "during their commercial inter-course, the Roman and Indian merchants seldom met. The intermediaries in their trade were the Alexandrian Greeks, Syrian Jews, Armenians, Arabs, Axumites and the Parthians controlling the Somaliland and the land routes leading to the East."
Moti Chandra, Trade and Trade Routes in Ancient India. (New Delhi: Abhinav Publications 1977) p. 109.

(3) By "India" and "Indians" I understand Greater India before the Partition, including Bharat, Pakistan, Bangladesh, Sri Lanka, and part of Afghanistan, and their peoples.

(4) Asthane, op.cit., pp. 6-9, and fig. 1, a map showing possible cultural contacts during the Old Stone Age.

(5) Ibid., pp. 9-10

(6) Ibid., pp. 10-13

(7) Ibid., pp. 14-36, fig. 10, a map showing pre-Harappan settlements of the Indus system and Baluchistan, and fig. 12 a map showing important Baluchi cultures; Chandra, op. cit., pp. 28-47.

(8) William H. McNeill, The Rise of the West. (Chicago, III. The University of Chicago Press 1963) pp. 98-103. It has been suggested that the Harappan people "perhaps used agricultural products as their media of exchange as late as the third millenium B.C "P.L Gupta Coins. (New Delhi: National Book Trust 1969) pp. 1-2; see also P. Einzig, Primitive Money 2nd edition (Oxford: Pergamon Press 1966) pps. 241-4 for the cattle currency of India in the ancient period.

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(9) Asthana, op. cit., pp. 38-48, and fig. 30, a map showing the principal sites of the Harappan civilization; Chandra, op. cit., pp. 29-37

(10) Asthana, op. cit., pp. 48-55

(11) Ibid., pp. 55-6; J D Muhly, Copper and Tin. The Distribution of mineral resources and the nature of the metal trade in the Bronze Age (New Haven, Conn.: The Connecticut Academy of Arts and Sciences) Transactions, vol. 43, March 1973, pp. 234 ff; J.O Nriagu, Lead and Lead Poisoning in Antiquity. (New York: John Wiley & Sons 1983) pp. 165-171; Among the items found at Ur in ancient Iraq was amazonite, a semi precious stone found only in India. G Roux, Ancient Iraq (Harmondsworth: Penguin Books 1964), p 71.

(12) Asthana, op. cit. p. 56

(13) Ibid., pp. 57-68, fig. 41, a map showing trade routes and local resources on the Iranian Plateau and surrounding areas, and fig. 42, a map showing Central Asian sites and their probable contacts with the Indus sites.

(14) McNeill, op. cit., p. 99; Heinz Mode, Die indische Frunkulturen und ihre beziehungen zum Western (Basel: Benno Schwabe & Co. Verlag (1944) pp. 86-7, 128-138; R M Wheeler, Early India and Pakistan to Ashoka. (London: Thames & Hudson 1959) pp. 100-104; E C L. During Caspers, "Trucial Oman in the Third Millenium B.C: New Evidence for Contacts with Sumer, Baluchistan and the Indus Valley", Origini 4 (1970) pp. 205-276; Willibald Kirtel, "vorgeschichte Besiedlung Indiens and seine Kulturen Parrallelen Zum alten Mittlemeeraum", "Saeculum IV (1955) pp. 166-179; D.P. Agrawal, "Harappan Chronology: A re-examination of the Evidence, "Studies in Prehistory: Robert Bruce Foote Memorial Valume(ed.) Sen & Gosh (Calcutta: 1966) pp. 139-148.

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(15) The early history of India is still beset by the "Aryan problem", which often clouds a genuine search for historical insight into that period. R. Th.,"Indian subcontent, History of,"Encyclopedia Britannica 15th ed., vol. 9 (Chicago: Encyclopedia Britannica Inc. 1981) p. 346.

(16). Chandra, op. cit., pp. 37-46; R N Frye, The Heritage of Persia. (Cleveland & New York: The World Publishing Co., 1963) p. 24.

(17) "The immediate aftermath of the Aryan invasions was a heroic age comparable to the Mycenaean period of Greek history". McNeill, op. cit. p. 189, 191.

(18) R. Th., op. cit., p. 345; Asthena, op. cit., pp. 116-119; McNeill op. cit. pp. 101-2; 122, fn. 78; 150, fn. 25; R C Majumdar, (ed) The History and Culture of the Indian Peoples; The Vedic Age. (London: Allen & Unwin Ltd. 1951) pp. 396-7;

(19) Asthana, op. cit., pp. 119-121 and fig. 73, a map of Ancient India showing local tribal names in Vedic literature

(20) Ibid., p. 121

(21) Ibid., pp. 121-2

(22) Ibid., pp. 122-3

(23) Ibid., pp. 123-4

(24) Ibid., pp. 124-9

(25) Ibid., pp. 129-30

(26) Ibid., pp. 130-1

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(27) Ibid., pp. 131-3

(28) Ibid., pp. 133-5

(29) Ibid. pp. 138-162, fig. 74(a) a map of India in the Ramayana Age, fig. 74 (b), a map of the position of the "original" Lanka, and fig. 75, a map of Northern India in the Mahabharat period.

(30) Ibid., pp. 153-4; Chandra, op. cit., pp. 99-103 et passim. Yavana (Yonas or Ionians) is a term borrowed by India through the Persian from the Greek,

(31) Asthana, op. cit. p. 157; Chandra, op. cit., p. 27. it is well known that the Indians had close contacts with the Roman world from atleast Mauryan times, i.e. the third century B.C., so that the interpretation of the term Roma as "the country of the Romans" is probably correct.

(32) Ibid., p. 163, fn. 1; Chandra, op. cit., pp. 48-69

(33) Bar-shaped silver ingots dating from the seventh century B.C which may have served as prototypes for India's bent bar coins have been found along the western end of the overland Mesopotamia-Ganges valley trade route at Nush-i Jan in Iran, and at Nineveh in Mesopotamia. A.D.H. Bivar, "A hoard of Ingot Currency of the Median Period from Nush-i Jan Near Malayir, "Iran 9 (1971) pp. 97-111.

(34) M. Mitchiner, The Origins of Indian Coinage(London: Hawkins Publications 1973) p.i; He adds that development of commercial intercourse with Mesopotamia "both along the overland route through Iran, Afganistan and Taxila, and also maritime trade which passed through the port of Broach in Avanti - led to the introduction of two distinct metrological standards for tariffing silver, one based on a silver unit weighing about 11 grammes and the other

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based on a lighter of 3¼ grammes. The heavy standard was essentially the tariff used along the overland trade route.- the lighter weight standard, essentially the tariff used along the maritime trade route."

(35) Asthane, op. cit., p. 165

(36) Genesis 10:29; I kings 2:28; 10:11; 10:22; 22:48; I Chronicles 1:23; 1:29; 4:2; II Chronicles 8:18:9:10; Job 22:24;24:16; Psalms 45:9; and Isaiah 13:12. Asthana, op. cit. pp 166-7

(37) Asthana, op. cit., pp. 167-8

(38) Ibid., pp. 168-172, fig. 76, a map showing satrapies of the Achaemenid Empire in the time of Darius; R C Majumdar, "Achaemenian Rule in India," Indian Historical Quarterly vol. 25 (1949)

(39) Ibid., pp. 170-1. There were two types of these "darics": the first dateable to the circa fifth or fourth century B.C., and bearing some resemblance to gold coins of Darius I, and the second which seems to be a copy of the coinage of Darius III, probably issued after the latter's defeat at Arbela October 1, 333 B.B. S K Chakraborty, "The Persian and Greek coins and their imitations in ancient India", Indian Historical Quarterly 10, pp. 70-1; E S Rapson, "Countermarks on early Persian and Indian Coins, "Journal of the Royal Asiatic Society (1895), p. 865; E J Rapson, The Cambridge History of India vol. I (cambridge 1922). pp. 307-8

(40) Asthana, op. cit., pp. 172-4; Chandra, op. cit., p. 46

(41) R. Th., op. cit., p. 355

(42) V.A. Smith, The Early History of India, 4th ed., (Oxford 1924) p. 52; H G Rawlinson, "Foreign influences in the civilisation of

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Ancient India", Journal of Bombay Branch. Royal Asiatic Society Bombay 23, p. 225; R K Mukherjee, The Culture and Art of India (London 1959) p. 91; H.G Rawlinson, India. A Short Cultural History. (London: The Gesset Press 1954) pp. 53-63; Asthena op. cit., fig. 77, a map showing Alexander's route from the Hindu Kush to the Hyphasis and back to Jhelum; Chandra, op. cit., pp. 70.3; C. Collins Davies, An Historical Atlas of the Indian Peninsula. (Oxford: Oxford University Press 1959) pp. 8-11.

(43) J Marshall, Archaeological Survey of India. Annual Report of India. 1924-1925. pp. 47-48, pl. IX.

(44) J Unvala, "Political and Cultural Relations between Iran and India", Annals of Bhandarkar Oriental Research Institute Poona 28 (1948) p. 179; E J Rapson, Indian coins (Strassburg 1897) p. 4; Mitchiner, The Ancient and Classical World 600 B.C - A.D 650. (London: Hawkins publications 1978) p. 73.

(45) Asthana, op. cit., pp. 179-185. It has been suggested that when Saint Paul wrote "and if I .... deliver my body to be burned, but do not have love, it profits me nothing," I Corinthians 13:3, he may have had in mind the incident at Athens where the ascetic called Zamanochegas (Sanskrit Sramanacarya?) a member of a mission to Augustus about 20 B.C. from the Indian king Porus, grew tired of a life of earthly bondage and burnt himself to death. A.L. Basham, The Wonder that was India (New York: Taplinger Publishing Co. 1968) p. 231; J P V D. Balsdom, Romans and Aliens. (Chapel Hill: The University of North Carolina Press 1977) pp. 251-2; Anab. 7,3; Strabo, 15, 1, C8, 7178; Pauly-Wissowa, Real-Encyclopadie der classichen Altertumwissenschast, vol. X, pp. 1544-6.

(46) Rawlinson, (1954) op. cit., pp. 64-88; L. de la Vallee Poussin, L'Inde aux temps des Mauryas - (Paris 1930); K A Nilakanta Sastri et al., A Comprehensive History of India vol. II The Maurays and Satavahanas. (Calcutta 1957) Davies, op. cit. p. 12.

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(47) Chandra, op. cit., pp. 70-89

(48) The Artha Sastra, or Manual of Politics, traditionally ascribed to Kautilya (c. 321-296 B.C), a Brahmin who aided Chandragupta, gives elaborate shipping regulations and "no doubt there was a considerable amount of coastal trade; Indian merchant vessels crossed the Indian Ocean to the mouth of the Tigris and to Aden".

(49) Asthana, op. cit. p. 188

(50) A J Arkell, "Meroe and India, "Aspects of Archaeology in Britain and Beyond: Essays presented to O.G.S. Crawford (ed). W F Grimes (London: H W Edwards 1951) pp. 32-38

(51) Asthana, op. cit., pp. 188-191, 202-206; W W Tarn, Hellenistic Civilization (New York: Meridian 1975) pp. 239-267 (Tarn has an excellent bibliography)

(52) Cambridge History of India pp. 390-1

(53) G L Adhya, Early Indian Economics (New Delhi 1966) p. 107

(54) E J Rapson (1897) op. cit. p. 4

(55) K A Nilakanta Sastri, Age of the Nandas and Mauryas 1st ed. (Banaras 1952) p. 219

(56) Asthena, op. cit., pp. 191-202

(57) Ibid.

(58) de Courtemache, "Note sur l'ancient systemes metrigue de l'Inde", Journal Asiatique II (1911) p. 361.

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(59) Cambridge Ancient History vol. VI, 1927 p. 42

(60) N R Roy, Numismatic Notes and Monographs 8. Numismatic Society of India (Varanasi 1951); S P Gupta, "The Chronology of the Punch-marked coins" (ed) A K Narain & Lallanj Gopal. Proceedings of the Seminar on Punch-marked coins (Banaras Hindu University 1966) pp. 39-42

(61) G Macdonald, "Ancient Persian coins in India," in Rapson (1897) op. cit. p. 34.

(62) McNeill, op. cit., p. 332

(63) Ibid., p. 311

(64) Ibid., p. 343

(65) Ibid., p. 344

(66) Ibid., p. 344

(67) Epistolae 2, 1, line 156

(68) Albert Herman, Die alten Seidenstrassen zwischen China and Syrien, (Berlin: Weidmannsche Buchhandlung 1910) pp.1-7 and end map; H. Hirth, "The story of Chang K'ien, China's pioneer in western Asia", Journal of American Oriental Society 1917 pp. 96 ff.

(69) McNeill, op. cit., p.323

(70) "All these two way exchanges of ideas and techniques depended on conscious human action and were correspondingly inhibited by indifference, ignorance and inattention. No such obstacle hindered the diffusion of disease germs. It is a curious fact that Roman

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records indicate a population apogee, coming about the first century A.D. From the second century onward, severe pestilence was a major factor in the decay of the Roman population and which assumed catastrophic proportions in the third century A.D as a partial result of traffic with regions where the population had already established a degree of immunity". McNeill op. cit., pp. 391-3

(71) Anton Kisa, Das Glas in Altertume 3 vol. 1908; E H Warmington, The commerce between the Roman Empire and India (Cambridge: University Press 1928) pp. 271-2

(72) Basham op. cit., p. 232; Wheeler (1959) op. cit. p. 133

(73) This hypothesis is based on the praise of the Yavana ships in early Tamil poetry of South India., e.g. "agitating the white foam of the Periyaru, the beautifully built ships of the Yavanas came with gold and returned with pepper, and Muziris resounded with the noise." -The Tamil poems of the so-called "Sangam" age of the earlier centuries A.D contain repeated references to the Yavanas. V. Kanakasabhai, The Tamils Eighteen Hundred Years ago. (Madras and Bangalore 1904); P.T Srinivas Iyengar, History of the Tamils from the Earliest Times to 600 A.D., (Madras 1929): The Silappadikaram(Trans.) V R Ramachandra Dikshitar (Oxford 1930)

(74) Basham, op. cit. p. 231

(75) Ibid., p. 221

(76) Sir Mortimer Wheeler, Rome beyond the Imperial Frontiers. (London 1954) pp. 126-130 for an account of the difficulties in dating Hippalus accurately; Warmington, op. cit. pp 44-8

(77) Pliny, Nat. Hist. VI, 104

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(78) "After the discovery of the monsoon, a voyage from Italy to India took sixteen weeks". Chandra op. cit. p. 112

(79) M Rostovtzeff, The Economic History of the Roman Empire p. 97, fn 18 (pp. 576-7)

(80) Ibid., p. 155, fn. 19 (p. 604)

(81) McNeill, op. cit., p. 325

(82) Ibid., p. 365 ff; This view is not shared by Mitchiner(1978) op. cit. p. 412

(83) J W McCrindle (trans & ed) The Commerce and Navigation of the Erythraean Sea (Calcutta 1879 repr. Amsterdam: Philo Press 1973); G.W.B Huntingford, (trans. & ed.) The Periplus of the Erythrean Sea (London: The Hakluyt Society 1980); W H Schoff, (trans. & annot) The Periplus of the Erythraean Sea (New York, 1912 repr. 1974)

(84) Warmington, op. cit., p. 52. Although the date of the Periplus has been much disputed in the past, there now seems to be fairly general agreement on the date span 60-70 A.D. For the arguments, see. A. Dihle, Umstrittene Daten: Untersuchungen Zum Auftreten der Griechen am Roten Meer (Cologne 1965)

(85) John Thorley, "The Roman Empire and the Kushans, "Greece & Rome October 1979 p. 183

(86) Warmington op. cit., p. 52

(87) Wheeler (1954) op. cit p. 123

(88) M P Charlesworth, "Roman trade with India: A Resurvey," (ed) R P Coleman-North, Studies in Roman Economic and Society History (Princeton

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N J 1951) argues that no more than "an occasional Graeco-Roman boat got through to the eastern side of India until after the end of the first century".

(89) Warmington, op. cit., p. 58

(90) Ibid., p. 59

(91) Rajavaliya. H W Codrington. A Short History of Ceylon. (rev. ed. London 1939) p. 23

(92) Two c.ritical texts are J. Fischer (ed) Claudii Ptolemaei geographiae codex urbinas Graecas 82 (Leyden 1932), and E L Stevenson (trans. & ed.) Geography of Claudius Ptolemy: Based upon Greek and Latin Manuscripts and important late fifteenth and early sixteenth century printed editions (New York 1932). Ptolemy's geographical work is discussed by J O Thomson, History of Ancient Geography (Cambridge 1948). Useful is Warmington, op. cit., 106ff.

(93) Ptolemy derived his conception of India and eastern Asia from the Greek works and reports of Alexandrian merchants and navigators. It has been suggested that the only original parts preserved of his work are his discourse of mapmaking and his list of cities tabulated according to longitude and latitude while the rest extent may have been compiled from a number of later sources by an unknown Byzantine scholar of the tenth and eleventh centuries A.D.

(94) M.S Purnalingam Pillai, Tamil Literature (Tinnevelly 1929); Iyengar op. cit.; Dikshitar, op. cit; K A Nilakanta Sastri, The Colas, as ed. (Madras 1955); K N Sivaraja Pillai, Chronology of the Early Tamils (Madras 1952); K A Nilakanta Sastri, History of South India (O U P., Indian Branch 1955)

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(95) Sir R E Wheeler, "Arikamedu: An Indo-Roman Trading Station," Ancient India ii (1946)

(97) Wheeler (1946) op. cit. 129, 173-178

(98) Such a "Pukka memsahib" of the first century A.D was Indicon, probably the wife of an Alexandrian Greek settled in India, who wrote a letter on papyrus to her friend in Egypt. Chandra, op. cit., P 120

(99) "After the second century B.C, the mass production of statuary became a regular business in the eastern Mediterranean, using mechanical methods for full-scale reproductions of famous pieces and employing molds for lesser pieces. This trade in statuary was, of course, mainly directed towards the Roman market in the West; but nothing prevented an enterprising merchant from trying his luck in India, too. It was probably in this way that some of the stray works of Mediterranean arts which archaelogists have turned up first reached India." McNeill op. cit p. 361 fn. 71

(100) For their coinage, useful are G K Jenkins and A K Narain, "The coin-types of the Saka-Pahlava kings of India", Journal of the Numismatic Society of India 18 pt 2 (1956), and S Prakash and R Singh, Coinage in Ancient India. A Numismatic, Archaeochemical and Metallurgical Study of Ancient Indian Coins (New Delhi 1968)

(101) For their coinage, interesting is B Chattopadhyay, The Age of the Kushanas - A Numismatic Study (Calcutta: Punthi Pustak 1967) and Prakash A Singh (1968) op. cit.

(102) For their coinage, E J Rapson, Catalog of the Coins of the Andhra dynasty (London, 1908)

(103) For their coinage, see Michiner (1978) op. cit., pp. 620 ff

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(104) For their coinage, see ibid., p. 627

(105) For their coinage, see C H Biddulph, Coins of the Pandyas Numismatic Notes and Monographs 11 (Varanasi: Numismatic Society of India 1966)

(106) For their coinage, see C H Biddulph, Coins of the Cholas Numismatic Notes and Monographs 13 (Varanasi: Numismatic Society of India 1908)

(107) The vast majority of Roman coins found in India are derived from hoards, mostly from South India. R E M Wheeler, "Roman Contacts with India, Pakistan and Afghanistan," (ed) W F Grimes, Aspects of Archaeology in Britain and Beyond: Essays presented to C G S Crawford (London: H W Edwards 1951) p. 360; Wheeler (1954) op. cit. p. 139

(108) The votive deposits comprise "Stupa-deposits in the Jalalabad district of Afghanistan, near the Pakistan border, others from Buddhist stupas at Manikyalan and Taxila near Rawalpindi in the Punjab, and others again, vaguely recorded in the Kabul valley". Wheeler (1951) op. cit. p. 360, and need not necessarily have been gathered from local sources". p. 350.

(109) They stray finds include "upwards of twenty-six sites or areas which have produced individual coins, generally either aurei or denarii of the 1st and 2nd centuries or small brass of the 4th century and later, these in the south". Wheeler (1951) op. cit., p. 361.

(110) R P Jackson, the dominions, emblems and coins of the South Indian dynasties", British Numismatic Journal 1912 pp. 302 ff.

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(111) P L Gupta, Roman Coins from Andhra Pradesh. (Hyderabad: The Government of Andhra Pradesh 1969), p.i & pp. 77 ff.

(112) Wheeler (1951) op. cit., pl. XX, pp. 351-2 states that some of these "local clay pendants or bullae (presumably gilded originally) based upon denarii or aurei of Tiberius, with rings or piercings for suspension", have on the reverse "a female figure seated (Livia as Pax), holding a scepter in r. hand and a branch in l. hand, and the legend PONTIF MAXIM, beginning on the r. Wheeler has "seldom seen these "Romanizing medallions from elsewhere than the central region," and suspects that "they come from the fringe of Roman influence and lie within the powerful Andhra regime," See also Gupta (1969) op. cit. p. 77; also A S Alte-kar, " A golden Amulet imitating a coin of Huvishka, Journal of the Numismatic Society of India 20 pt. 1 (1958) pp. 103. Note also K S Behera, "On a Kushana Gold Coin from Orissa," Journal of the Numismatic Society of India 37 (1975) pp. 76-82 who concludes that Kushan coins were not the currency of Orissa, but were used for ornamental purposes.

(113) Wheeler, (1951) op. cit. p. 360.

(114) The earliest listing was that of R. Sewell, "Roman coins found in India," Journal of the Royal Asiatic Society 1904 pp. 591-637. This was followed by Warmington, op. cit., pp. 280-284, and then updated by Wheeler (1946) op. cit. pp. 116-120, and then revised, Wheeler (1951) op. cit. pp. 375-380. This was followed by Gupta (1969) op. cit., pp. 41-46. The latest and most comprehensive listing is that of Manfred Raschke, Roman Coin Finds on the Indian Subcontinent: A Catalogue and Analysis. unpublished phd. Dissertation. (Cambridge: Harward University 1979).

(115) In addition to the sources cited above, note for Ceylon only H.W Codrington, Ceylon Coins and Currency (Colombo Museum 1925) pp.

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596-637, and J Still, "Roman Coins found in Ceylon", Journal of the Royal Asiatic Society. Ceylon Branch XIX (1907) pp. 161-190.

(116) E g., a 1965 hoard found at HAL airport near Bangalore described by M Seshadri Archaeology(1969), and the 1970 Adam Taluka Umred, Nagpur hoard reported in the Journal of the Numismatic Society of India XXXIV.

(117) Thorley, op. cit., p. 190. fn. 5

(118) S Bolin, State and Currency in the Roman Empire to 300 A.D (Stockholm: Almquist & Wiksell 1958) p. 66

(119) M Grant, Roman History from Coins (Cambridge: Cambridge University Press 1958) p. 81. For surveys of Roman commerce with India, see Warmington, op. cit., M.P. Charlesworth, Trade-routes and commerce of the Roman Empire (Cambridge 1928), and H G Rawlinson, Intercourse between India and the Western World (Cambridge 1916)

(120) Gupta (1969), op. cit.

(121) Ibid., p. 47

(122) Ibid., p. 47. This trade was sought after on the part of the Tamil Kings. It was in the time of Augustus that several Indian embassies reached Rome, probably sent to facilitate the trade relations that were then at their height. Chandra, op. cit., p. 111, and Warmington, op. cit. pp 35-37. Concerning the Coimbatore district, Wheeler (1951) op. cit. p. 354 remarks that the "Roman coin-pattern of South India is a remarkable one. Into a single district, Coimbatore, some 250 miles west of Madras, are concentrated the majority of the find spots of early Imperial coins recorded from India. The emperors mainly represented are Augustus, Tiberius and Claudius, and the coins are audei and denarii".

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(123) Gupta (1969), op. cit. p. 47; Grant (1958) op. cit. pp. 83- 4 notes that the "denarius of Tiberius found in such amazingly large quantities in the Coimbatore region is the so-called "Tribute Penny" of the Bible identified with the "Penny" that was brought to Jesus (Matthew 22:15-22, Mark 12:13-17, Luke, 20:2-26). No other denarius of Tiberius circulated nearly so extensively. Warmington, op. cit. p. 278

(124) Gupta, (1969) op. cit., p. 47, Testifying to the influence of his coinage, the bust on Kushana bronze coins bearing the name Kujula Kadphises is directly imitated from the bust of Augustus on coins of the year of B.C.

(125) Ibid., p. 47; Warmington op. cit., p. 284 concludes that "Down to the time of Nero deliberate exportation of both metals took place not only for wholesale purchases but in order to create in India a gold and silver currency of a Roman type among the Tamil in general".

(126) Ibid., p. 48; Grant (1958) op. cit., p. 85 notes that the scarcity of later pieces is due to "Roman restrictions on the drain of bullion and perhaps especially to one of the results of that drain, a debasement of the silver coinage by Nero (c. AD. 64) which is likely to have caused a Crise de confiance in India". For the latter, see T L Comparette, "Debasement of the silver coinage under the Emperor Nero", American Journal of Numismatics XLVII (1914) pp. 1-11; and D Macdowall, The Western Coinage of Nero. Numismatic notes and Monographs 161 (New York: American Numismatic Society 1979) especially pp. 135-140. For the adverse balance of trade in India's favor prior to Nero's debasement of the coinage, see Warmington, op. cit., pp. 272 ff. Also useful is Bolin, op. cit., chapter IX.

(127) Gupta (1969) op. cit. p 48

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(128) Ibid., p. 48; Wheeler (1951) op. cit., p; 365-6 notes that "the district of Coimbatore is approached up two major river valleys, that of the Cauvery from the east coast and that of the Ponnani from the west. It lies there at a point where the Eastern Ghats, swinging westwards, merge into the Western Ghats and conspite with them to leave a transverse gap, about 20 miles wide, between east and west. Through this the Ponnani or Palghat or Coimbatore gap, the railway from Madras and the Carnatic Plain now penetrates to Calicut and Cochin - Along it we cannot doubt the ancient traffic from Muziris(Cranganore) and Nelkunda on the Malabar coast, evading the troublesome coastwise voyage around Cape Comorin, travelled overland to Podouke emporion and Khaberis emporion, Arikamedu and Tranquebar. There are clear geographical reasons for the transit of wealth and traffic through Coimbatore. But why should so large a proportion of this wealth have come to rest there? Some of the hoards of bullion may have been buried and lost by harried travellers amidst the perils of the Nilgiri foot-hills and of the Chola-Chera-Pandya borderland. Others may have passed to local prospectors and miners concerned with the famous beryl mines of the district, or to owners of the pepper-estates which doubtless spread along and below the 3,000 foot contour on the fringes of the district and contributed to the "pepper-barns" of Rome. These are all guesses, but all of them are sufficiently likely. The fact remains that in this region, accessible and traversable, one of the principal imports of early Roman trade with India found on several occasions, by accident or design, its final harbour". see also Chandra, op. cit., p. 121

(129) Gupta(1969) op. cit., pp. 48-9, McNeill, op. cit., p. 358. fn. 67 Chandra, op. cit. p. 129

(130) Gupta (1969) op. cit., p. 49-50, Rostovtzeff, op. cit., pp.413-414, fn 32(p. 718), p. 473 fn 8 (p. 737);

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(131) Gupta (1968) op. cit., p. 50

(132) Gupta (1969), op. cit., pp. 50-1; Wheeler (1951), op. cit., pp. 352-3 suggests that "most of the western (Roman) trade with north-western India between the Ist and IIIrd centuries A.D may be described as transit-trade; that is, it was a long range trade between central or eastern Asia and the West, using the ports of the Indus or Gujarat as entrepots between the western sea-routes and the arterial land-routes which fed the China-road north of the Hindu Kush and so avoided passage through a hostile Parthia. No doubt powerful intermediaries such as the Kushana kings secured a rake-off from this traffic - but there was it seems, no extensive local marketing with the Yavanas or westerners within the Kushana kings Empire; apart from a few gem-stones such as the cornelian of Rajpipla and the lapis-lazuli of north-eastern Afghanistan, the Kushana kingdom produced little that the luxury-markets of the West desired". Also interesting in this context is Saifur Rahman Dar, "The question of Roman influence in Gandharan Art; Numismatic Evidence," Rivista Italiana di Numismatica e Scienze Affini 79 (1977, published 1978) pp. 61-89.

(133) Gupta (1969) op. cit., pp. 51-2; Chandra, op. cit., p. 121-123

(134) Gupta (1969) op. cit., p. 52; Wheeler (1951) op. cit., p. 361, fn. 37 believes that "these late copper coins are a remarkable phenomenon, at present inadequately explained. They occur freely in the South, generally but not exclusively along with Coromondel Coast, together with Chinese and Arabian pieces--". The small (1-1.5 gm) bronzes issued during the second half of the fourth century A.D., e.g. Constatius II (A.D 337-361), Honorius (A.D 393-423) the Arcadius (A.D 383-408), are found around Madura, at other places in the Pandya country, and at numerous sites on the adjacent island of Sri Lanka. Whereas Roman aurei and denarii tend to be more plentiful than their local imitations in the

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Neronian and pre-Neronian period, the reverse is true of hoards of later material in which imitations tend to be more numerous than original bronzes. The bronze imitations are all found in Ceylon, and the "Wheel" type is one of the most common imitative designs. This form of imitative bronze (0.2-1.5 gm) coinage, together with a coherent series of small (ca. 2 gm) circular, die-struck copper geometric issues, issued from ca. second to first centuries B.C., consisting of obverse lion right, elephant walking right or left, or circle with five dots, and reverse geometric symbol, probably remained in use from circa A.D 350 to 750 until the period of Pandyan resurgence in the eighth century.

(135) Ibid., p. 52

(136) Ibid., p. 52

(137) Ibid., p. 53; Rostovtzeff, op. cit., p. 158 tells us that "from the second century we have hundreds of inscriptions which mention the profession of men of the time - If we eliminate from the mass those which refer to retail traders in the various cities and take into account the wholesale merchants only - the importers and exporters - we see that the majority of them dealt in foodstuffs, especially corn, wine, and oil, in metals, lumber, clothes and pottery - articles of luxury played almost no part in the big wholesale trade, which dealt almost exclusively with the necessities of life".

(138) Ibid., p. 53; Chandra, op. cit., p. 123; Bolin, op. cit., Chapter XI; Rostovtzeff, op. cit., p. 473 fn 8 (p. 737)

(139) Ibid., m. p. 53; Chandra, op. cit., p. 193

(140) Ibid., p. 53. The Gandharan dhoti, a single piece garment, seems to be an adaptation of the style which flourished in Rome under Hadrian (A.D 117-138)

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(141) Warmington quoting Pliny (XII 84) says that at the lowest computation India, Seres(=Cheras?), and Arabia drained from the Empire a hundred million sesterces (about 1,087,500) every year, "so dearly do we pay for our luxury and our women". Warmington op. cit. pp. 273-4 adds that "the empire taken as one unit was unable to offer to foreign nations in general and to oriental nations in particular sufficient products of its own to balance the articles imported from them in large quantities, and the result of this was the draining away from the empire of precious metals in the form of coined money without any adequate return - The movement of specie eastwards took place in two forms: merchants carrying on large transactions with foreign countries found gold coin a necessity for a condition of wealth and for external commerce, while silver was essential for small change, and so, much Roman money was taken by Roman subjects to India in order to buy up in bulk what they were unable to get by exchanging Imperial products in bulk," plus "there was deliberate exportation of Roman money to India to create a Roman currency there".

(142) Wheeler (1954) op. cit., p. 140. Mitchiner (1973). op. cit., differs saying "it has been suggested that Roman denarii and their imitations circulated as bullion but this seems unlikely".

(143) Wheeler (1954) op. cit., p. 140; Gupta (1965) op. cit., p. ii notes that "the Roman coins were approximately of the same weight as the indeginous (sic) silver punch-marked coins; so they were converted into Indian coinage. For this purpose, first the Roman Imperial authority was cancelled by putting a chisel out over the Imperial effigy on the obverse; and then they were authenti--cated by punching minute marks, similar to those seen on the punch-marked coins. This explains the paucity of the silver Satavahana coins". Pausanias, a Greek traveller and geographer, wrote that "Traders to India tell us that the Indians give their own wares in exchange for those of the Greeks without employing

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money, even though they have gold and copper in abundance". J W. McCrindle, Ancient India as described in classical Literature (Westminster: Archibald Constable and Co. Ltd., 1901) p. 211

(144) Wheeler (1954) op. cit., pp. 140-1

(145) Wheeler (1954) op. cit., pp. 140-1; Cosmas Indicopleustes, an Alexandrian monk who flourished during the sixth century wrote "Now once upon a time one of countrymen engaged in commerce and called Sopater, who to our knowledge died five-and-thirty years ago, came on business to the island of Taprobane, where also, it so happened, a ship from Persia came to moorings. So the men from Adule, among whom was Sopater, disembarked, as did likewise the men from Persia, among whom there was one of advanced age. Then in accordance with the custom of the place, the magistrates and the custom-house officials received them and brought them to king. The king, having admitted them to be seated. Then he asked them: how fares it with the countries you come from, and how are things moving there? To this they replied: Things are going on all very well, Afterwards, when in the course of conversation the king inquired: Which of your respective kings is the greater and the more powerful? The Persian, who was in haste to speak first, replied: Our king is both more powerful, and is greater and richer, and is king of kings, and he can do whatever he pleases. Sopater, on the other hand, remained silent. So the king asked: Have you, Roman, nothing to say? What have I to say, he rejoined, when he there has said these things? If you wish to ascertain the truth, you have both the kings here. Examine each and you will see which of them is the more illustrious and the more powerful. On hearing this the king was surprised at what he said, and asked: how, have I both the kings here? The other then replied: you have the money of both - the current coin of the one and the drachma of the other, that is, the miliarision. Examine the image of each, and you will see the truth. The king thanked

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the man, and assenting to his proposal, ordered both coins to be produced. Then the Roman coin had a good ring, and was bright and finely shaped, for choice pieces of this nature are exported thither. But the miliarision was silver, and, to say in a word all that need be said, was not be compared with the gold piece. The king having closely examined each of the coins both on the overse and the reverse die, bestowed all manner of praise on the Roman coin, and said: Truly the Romans are splendid men and powerful, and possessed of great good sense. He therefore commanded Sopater to be greatly honoured, and having mounted him on his elephant, he conducted him round the whole city with drums beating and many marks of honour. All this was told us by Sopater himself as well as by his companions who had gone with him to that island from Adule. This occurence, they assured me, overwhelmed the Persian with shame". McCrindle (1901), op. cit., pp. 162-3

(146) Wheeler, (1954), op. cit., p. 141 et passim

(147) Gupta (1965) op. cit., p. 68 referring to the Akkenpala(Nalgonda) hoard, remarks that "except five, all of the incised coins in the hoard have the incision on the obverse, Of the five coins, only one is incised on the reverse; the other four are incised on both sides. This shows that the incision was meant only for the obverse; and if it is seen on the reverse, it is accidental.

(148) "The incision is always found on the figure of the emperor and not on the surrounding space. Most of the coins have a neat cut. The cuts are either vertical or horizontal or slanting. The vertical incisions cut the figure in two parts from head to trunk or incise the face only. The horizontal cuttings pass across the forehead in most cases. It is rarely seen on the other parts of the head. Slanting cuttings either start from the back of the temple and go up to the chin and nose; or they start from the forehead and go back up to the neck. More than one incision is found on a few coins.

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Where the incisions are two, they mostly form a cross - a mark of cancellation with uneven arms. In a few cases the two incisions run parallel, though not exact. Sometimes they form an angle or make the shape of Y or T. In rare cases three incisions are seen on the coins. There they are combinations of the above forms". Ibid., pp. 68-9.

(149) Wheeler, (1904) op. cit., p. 141; Gupta (1969) op. cit., p. 49 Various suggestions have been put forth by such writers as Arvanuthan, Theobald, and Hill and Gupta, the latter pointing out that since indigenous punch-marked coins weighed 50 to 54 grains, approximately the same weight as the denarri, the local authorities, in order the avoid the long process of minting and to reduce production costs, modified and authenticated them with a chisel cut which converted the coinage to bullion.

(150) Warmington, op. cit., pp. 319-320; H Goetz, "Gupta, school of," Encyclopedia of World Art vol. vii (N.Y. Toronto-London: McGraw Hill 1963) p. 254. In the West, apart from the adoption of Jataka stories, the presence of Indian elements in Manichaean, Gnostic, and possibly neo-Platonian beliefs, and possibly the presence of Indian motifs in Roman and Egyptian minor arts, the Indian influence was almost nil. In India, the influences were slightly stronger, e.g. the Krishna legend, influences on Tamil philosophy, astronomy, the Jewish calendar, the Greek and Roman influences on Indian art. What concerns us here is Roman influence on Indian numismatics. The best known examples are in the North where both the Guptas and the Kushanas struck coins based on the Roman systems; in the fifth century A.D., the word "Dinar (denarius) was being used in Indian records; and the gold coin of the Ganges region may have been influenced by Rome; while in the South, the Greek troy scale of weights perhaps reached India and China.

(151) For such an approach, see C Haselgrove and J Collis, "A Computer-

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based Information Storage and Retrieval Scheme for Iron Age Finds in Britain." ed. B. Cunliffe Coinage and Society in Britain and Gaul: Some Current Problems (London: Council for British Archaeology Research Report no. 38, 1891) pp. 57-61; H. Bender, H Tremel, and B. Overbeck, "Auswertung romischer Fundmuzen durch Datenverarbeiten. Demonstration and Hand der Grabung Wessling-Frauenwiese," Bayerische Vorgeschichlsblatter 43 (1978) pp. 115-146. Technology in progress regarding pattern recognition may obviate the labou riousness presented in superimposition of negatives on positives in A. Voute, "Ein einfache Methode zum Stempelvergleich bei Munzen" Schweizer Munzblatter 22. 85(feb. 1972) pp. 22-27.

(152) V Clain=Stefanelli, History of the National Numismatic Collections. Contributions from the Museum of History and Technology Paper 31 (Washington D.C: U S Government Printing Office 1970) p. 35.

(153) P. Grierson, Numismatics (London. Oxford-New York: Oxford University Press 1975) pps. 149-155 sets forth some of these difficulties in a non-technical fashion.

(154) Notable examples include D.R. Walker, The Metrology of the Roman Silver Coinage. Part I: From Augustus to Domitian (British Archaeological Reports, Supplementary Series 5). (Oxford 1976).

(155) Here the use of trace elements is of great value in understanding the technology of ancient smelting. A useful reference is John F Healy Mining and Metallurgy in the Greek and Roman World (London: Thomas & Hudson 1978) 316 pp.

(156) See G F Carter, " A Graphical method for calculating the approximate total number of dies from Die-link statistics of Ancient Coins".
(ed. W.A. Oddy) Scientific Studies in Numismatics. British Museum

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Occasional Paper no. 18 (London: British Museum 1979) pp. 17-30; I.D. Brown, "On the use of statistics in numismatics". Numismatic Circular 77:3 (March 1969) pp. 82-84.

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INDIA'S CONTACT WITH THE WEST IN THE SATAVAHANA PERIOD

DR MRS SHOBHANA GOKHALE

Introduction

Numismatics is considered as a valuable source of ancient Indian history as there are no regular historical chronicles. They are of outstanding importance for the reconstruction of ancient Indian history. The Satavahana monarchs ruled over a considerable portion of the Deccan from the latter half of the 1st century B.C down to the 1st quarter of the third century A.D.

According to the Puranic traditions there were thirty kings in the Satavahana dynasty who ruled over a period of four hundred and fifty years. The members of this dynasty styled themselves as Daksinapathapati - Lord of Southern countries.

These rulers issued extensive series of coins in different metals presenting numerous types and denominations. The Satavahana coinage though native in character betrays interesting evidence. Investigations made in connection with metrology and manufacturing technique reveal undeniable information. Scholars like Mukherjee(1) (Lahiri(2) and Shastri(3) have throughly discussed the problem of foreign elements in Indian indigineous coins.

Background

The 1st century B.C to 2nd century A.D is the period of renaissance in the ancient history of India. This was the time when Hippalus discover the periodicity of trade-winds. The Satavahana empire was at its zenith and it was conducting active commerce with Rome and the

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western world. The Naneghat, the ancient trade route had played an important role in the economic activities of the Satavahana period.

The ghat was actually a culture-channel from which the Satavahanas had contacts with the western world. Mukherjee(4) has shown how Nana the important coin-device of the Kusanas, in the course of time became a general term Nano, Nane in India. Naneghat provides one more supporting evidence to this proposition. It was the place of money transactions. It has still restored a big stone-pot which was meant for toll collection.

The geographic distribution of various cave sites in western India reveal that they are situated along with the principal trade routes that led from the ports to the market towns of the interior. There are three main sets of passes through the western ghats leading to the interior and caves are situated at the heads of all the three. The sher and Thal ghat connect Sopara with Nasik and then inland. The Naneghat links Kalyan to Junnar and from there to Paithan and the Bhorghat connects Kalyan to Karle and then to Ter. This advantageous geographical position of Junnar, Nasik and Kalyan made them commercial as well as cultural centres too.

Persian Contacts

It is well-known that the Persian suzerainty was extended to the Sindhu Valley and probably some territory to the east of river in 500 B.C. The momorable Persian expedition against Greece which Indians formed the part of the Persian army. This intimacy continued in subsequent historical times made a great impact on ancient Indian culture.. In western Indian cave-art, with all its dignified bearing, shows many art forms which has Achaemenian influence. The validity of this assumption is more convincing when we take into consideration the unique evidence of Naneghat with its geographical position. Dehejia(5) has aptly remarked source of influence for the artist may have been reports had heard about the art of other countries. Traders from abroad would have been found

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in the coastal towns of Kalyan, Sopara Chaul and Bharukachha. They would have described the wonders of their country. They would have spoken of their rock-cut tombs and temples and of their pillared shrines Artist and craftsmen must have been among those who listened to those accounts. To what extent they might have been influenced it is impossible to tell but the stories may well have kindled their imagination. In addition to the craft tradition and to what the artist had both seen and heard, we must further allow for the artist's own contributions, the innovations he himself made".

This assumption fits well when we study minutely the geographical environ of Naneghat.

The very concept of erection of statues of the royal family of the Satavahanas just on the highway is fantastic. This concept arose flourished and vanished on this trade route. It never occurred in the posterior history anywhere in peninsular India. Nagsh-i-Rustum(6) in Persia where the royal tombs are carved into cliffs. Darius commemorated his victories on the rock over hanging the main road from Mesopotemia to Persia.

As suggested by Dehejia the stories of traders might have kindled the imagination of the Sātavāhana artists. The Naneghat cave on the trade route consists of seven(7) portraits of the Royal members of the Satavahana house. Simuka, the founder member of the house, Siri Sātakarni Naganika, three sons Kumara Bhaya, Kumara Hakusiri Kumara Sātavāhana and Maharathi Tranakayira, the father of the queen Nāganikā. There is an inscription which records the munificent gifts made at different sacrifices by the queen Naganika and the king Satakarni.

The Satavahana coinage could be studied against this cultural back-drop.

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Use of Electrum

Electrum is natural or artificial alloy of gold with at least 20% silver which was used to make the first known coins in the western world. Natural electrum usually has an admixture of copper Iron Palladium, bismuth and perhaps other metals. In the ancient world, the chief source was Lydia in Asia Minor, where the metal was found in the area of the Pactolus river, a small territory of the Hermus in modern Turkey. Various Greek states adopted electrum for coinage before the fall of the Lydian state (Middle of 6th century B.C. The Lydians had the earliest settlement of Sardis near present Izmir on the Aegean coast. They were the first people to coin money. The Satavaha rulers were the first Indian rulers who apted for this metal. At Nasik I could find in the collection of Mr. Vaishampayan saraf electrum coins of king Siri Satakarni Vasisthiputra Pulumavi and Kochchiputra Satakarni.

Siri Satakarni: Shape: Round dia-- 2 cms thick-ness 0.2 cms;
Weight:6.200 gms.
Obv: Elephant with uplifted trunk
Rev: Tree in railing

Vasisthiputra Pulumavi:
Shape: Round; dia: 1.5 cms thickness 0.2 cms;
Weight:3.500 gms
Obv: Elephant with uplifted trunk legend Sara putumavisa
Rev: Ujjain symbol

Kochchiputra Satakarni:
Shape: Round; Dia: 2cms; thickness 0.02 cms;
Weight: 5.500 gms.
Obv: Elephant with uplifted trunk on its back a handa, Ujjain symbol
Rev: Tree in railing

The weight of all the coins is about 3.600 grams. This shows that

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the Satavahanas tried to adhere to the monetory system of Athens. The discoveries of electrum coins of Siri Satakarni, Vasisthiputra Pulumavi and Kochchiputa Satakarni have proved that the Satavahanas had trade relations with Turkey; The country which issued electrum coins in 700 B.C.

The silver, coinage of the western Ksatrapas exerted tremendous influence on the general character of the silver coins of the Satavahanas. So far the silver portrait coins of seven monarchs of the dynasty were known in the numismatic field viz. (1) Gautamiputra Satakarni(8) (2) Vasisthiputra Satakarni(9) (3) Vasisthiputra(10) Pulumavi (4) Vasisthiputra Shiva-Sri Pulumavi(11) (5) Vasisthiputra Skanda(12) Satakarni (6). Gautamiputra Yajnasri(13) Satakarni (7) Vasisthiputra Vijaya Satakarni(14).

As regards the size, weight, fabric and Satavahana silver coins closely resemble the Ksatrapa silver issues but they are not slavish copies of the Ksatrapa coins. A close study of all the known portrait coins of the seven Satavahana rulers show that the Satavahana mint-masters skillfully portrayed the faithful representations of their kings in full-fledged Indian style. The kings portrait is adorned with crest jewel(chudamani) and heavy ear-ornaments (karnakundala).

The Coins of Vasisthiputra Pulumavi depicting him young, matured and old have come to light. A terracotta(15) mould which contains three sockets display three different life-stages of Yajnasri. The yound portrait of Yajnasri is shown as a Dhirodatta hero in Sanskrit classical literature. The middle-aged portrait displays Kakapaksa hair-style of a soldier and the portrait of the old king is shown with frizzled hair-style. This sophisticated art of realism is the special feature of Hellenistic art. The Satavahana mint-masters skillfully represented faithful personalities of their kings. These are the fine examples to show how the Satavahana artists adopted the Hellenistic art rather tha the rigid and monotonous Ksatrapa style.

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The crest of the head of Vijaya Satakarni is the fine example of Greek influence.

The classic example of Greek influence on the Satavahana coinage is the silver coin of Siri Satakarni and Naganika(16). It is a fine example of join issue and it reminds us of the coin of Hermaeus and Calliope.

The corroborative epigraphic evidence could be quoted from the inscriptions of Nasik. The Satavahana king Gautamiputra Satakarni who called himself as Śaka-yavana-Pahlovahisudana(18). The territory of these Yavanas probably lay not far from Kathiawar.

According to Tarn(19) the yavana donor who have been mentioned in the inscription at Nasik-Yonaka-Indragnimitra the northerner, native of Dattamitri was the Indian merchant who was a Greek citizen. Dattamitri was Demetrias in Sind, which was the centre of export. Kalyan was a very important port in the Satavahana period. One inscription of Kanheri(20) mentions a monastery in the Gandharika-bhrami. Burgess has aptly remarked that it was the name of a ward in Kalyan and in the present day the Indian equivalent would be the Kabuli-bazar.

Roman Contact

Commercial relations with Rome during the Satavahana(21) period are too wellknown to be discussed. The double mast ship-type coins of Vasisthiputra Pulumavi(22) and Yajnasri(23) not only testify to the prevalence of maritime trade and commerce but indicate that the Satavaha mint-masters took inspiration from the Roman coins. Roman ships appear on the coins of the Roman emperor Hadrian and the bronze medallians of the emperor Commodus(24). The lead coin of Yajansri in the British museum depicts a fleet of cargos. This unusual device not only indicate maritime activities in the Satavahana period but beautifully illustrate

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the commercial as well as cultural transactions between India and Rome.

Footnotes:

(1)	Mukherjee B.N	1962	Foreign Elements in Indian Indigenous coins pp 13-26
(2)	Lahiri A.N	1962	op.cit. pp.1-12
(3)	Shastri A.M	1962	op.cit. pp. 32-43
(4)	Mukherjee B.N	1962	op.cit. p. 21
(5)	Dehejia Vidya	1972	Early Buddhist Rock temples p. 140
(6)	Brian Dicks	1979	The Ancient Persians How they lived and worked p. 45.
(7)	Sircar D.C	1965	Select Inscriptions bearing on Indian History & Civilisation p. 192
(8)	Gupta P.L		JNSI XXI, p. 102
(9)	Altekar A.S		JNSI XI pp. 59-63
	Dinkar Rao		JNSI XXI pp. 9-10
	Ramayya S		JNSI XXVII pp. 32-36
	Gupta P L		JNSI XXI, p. 109
(10)	Trivedi H.V		JNSI XIV, p.2
	Dinkar Rao		JNSI XXXVIII p. 12
	Gokhale Shobhana		JNSI XL p. 13-17
(11)	Shastri A.M		JNSI XLIV, p. 9
(12)	Gokhale Shobhana		JNSI XL p. 13-17
(13)	Rapson E.J	1908	BMC AK p. 45
(14)	Gokhale Shobhana		Numismatic Digest No. 3, p. 31-34
(15)	Gokhale Shobhana	1981	JNSI XLIII p. 54-59
(16)	Chinmulgund P.J	1976	JNSI XXXVIII Part 1 p. 6
(17)	Lohiri A.N	1965	Corpus of Indo-Greek Coins Calcutta p. 142
(18)	Senart		Ep. Ind. Vol VIII pp 60
(19)	Tarn	1951	The Greeks in Bactria and India Cambridge p. 371
(20)	Burgess J		Buddhist
(21)	Schoff W.H	1972	Periplus of Erythrean Sea p. 190

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(22) Rapson E.J 1908 Catalogue of the Andhra Dynasty W. Ksatraps, Traikutaka dynasty p. 22

(23) Deo S.B 1974 JNSI XXIV Part I & II pp. 172-174

(24) Cimino R M Sciapipi F 1974 India and Italy p. 7-8

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EXTERNAL (MARITIME) TRADE AND INTERNAL MEDIA OF EXCHANGE IN TWO EMPIRES OF THE EARLY MEDIAEVAL AGE

B N MUKHERJEE

The family of Gopala I reigned from about the middle of the 8th century A.D to the second half of the 12th century A.D., while that of Vijayasena wielded authority from about the end of the 11th century A.D to the first decade or rather (in a very limited way) to the second half of the 13th century A.D. Their empires, known as those of the Palas and the Senas, lasted with varying limits and fortunes in the territories now included in Bihar, West Bengal and Bangladesh. They rose and fell in the early mediaeval phase of the history of the Indian sub-continent(1).

Each of these two empires ensured political stability for a fairly long time over a wide stretch land, where the Ganges and its branches provided, apart from overland routes, very convenient channels of communication(2). Overland routes connected the region with China, Tibet and Nepal as well as with other parts of India(3). The sea-coast of the territory enhanced its potentiality as a base for maritime trade. These conditions should have encouraged growth of industry and regular movement of articles of trade.

As we have shown elsewhere, there are data to suggest industrial and trading activities in the Pala and Sena empires(4). The rulers themselves were sometimes interested in commerce, probably because it constituted an important source of revenue(5).

Foreigners' interest in the trade of the territory concerned is indicated by some early Muslim writers. It has been recognised that the

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kingdom mentioned by them as Ruhmi, Rhmi, Rahmi, Rahma, Dhmi, etc. can be identified as the Pala empire, especially of the time of Dharmapala(6). Sulaiman, the merchant, in the 9th century A.D spoke highly of a fine stuff made of cotton produced in Ruhmi(7). Iban Khurdadba referred to the "cotton cloths and aloe wood" of this territory(8) (which must have been produced and/or commercially dealt with there). Ya qubi considered Rum as a "gold producing" area(9). The author of the Hudud al-Alam noted that "in no place of Hindustan are fresh aloes found but in the (possessions of the king of Qamarun (i.e. Kamarupa) and Dahum (i.e. Dharmapala?). These countries produce in large quantities good cotton". He also referred to conches and elephants of this region(10). Al Masudi knew that Rahma and "elephants, camels and horses(11)". However, horses for inter alia the Pala and Sena armies must have been brought largely from outside through overland routes. It appears from the Tabaqat-i-Nasiri that about fifteen hundred horses were sold daily at Karambatan (somewhere at the foot of the eastern Himalayas), from where these also brought to the territory of Lakhnauti (under Lakshmanasena(12).

"Fine swords, tou-lo cotton stuffs and common cotton cloth" are described as products of P ong-k ie-lo i.e. Vangala (on the sea-coast and to the south of Vanga region) in the Chu-fan-chi of Chau ju kua, written in about the middle of the 13th century A.D(13). Marco Polo observed that in Bengala "they grow cotton in which they derive a great trade, also spices like spikenard, galingale, ginger, sugar and many other sorts"(14).

Some of the above noted articles fetches high price outside the region under review. The finest quality of aloe wood (of Kumar = Kamarupa which must have been exported through the territory concerned) was worth 200 dinars per man (Multan?)(15). Girdles made out of horns of rhinoceros exported from Rahma to China used to fetch 2000 to 4000 dinars each(16).

Foreigners were obviously interested in some of the commercial articles of the region concerned and hence spoke of them in their

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writings. Nature and contents of these writings indicate that these products were exported mainly through sea-routes.

The importance of the ancient port of Tamralipti (at or near modern Tamluk in the Midnapore district) as an emporium for sea-borne trade probably declined in about the 8th century A.D(17)., and so, at the latest, by the very early stage of the Pala rule. On the other hand, before this period the regions Samatata (Noakhali and Comilla districts) and Harikela (including initially the Chittagong region) developed contacts with outside world. In the first half of the 7th century A.D. Hsuan-tsang collected in Samatata information about Shi-li-Ch'a-ta-lo (near sea, mountains and vallyes) (Srikshetra or the Prome area of Burma) Ka-mo-lang-ka on sea (Kamalanka), (Pegu and the delta of Irawadi?), To-lo-po-ti (Dvaravati, in Thailand), I-shang-na-pu-lo (Isanapura = Cambodia?), Mo-ho-chan-p o (Mahachampa) (parts of Vietnam) and Yen-mo-na-chou(18). These territories in South-east Asia must have maritime contacts with Samatata. In the latter half of the 7th century A.D. Seng-chi travelled by the "southern route" and arrived in Samatata. At about the same time Wu-hing came to Harikela from China by the "southern route" to reach A-li-ki-lo (Harikela)and Wou-Hing went to O-li-ki-lo (Harikela) from Simhapura (Sri Lanka(19). The southern route" to Samatata and Harikela probably began at Canton and touched inter alia Bhoga (Palembang in Sumatra) and Mo-lo-yu (Malay peninsula, where was Kataha or Kedah). The same route could have (from an earlier period) reached Tamralipti in the north west (via Arakan and some other parts of the coast of Burma) and Nagapattana(Negapatam) and Ceylon or Sri Lanka in the west and south-west(20).

It appears from a description of Chia Tan that in about A.D 800 ships from Kwang-chou (Canton) used to visit inter alia Chiu-chou shih (Taya islands, north-east point of Hainan), Kuta kuo (Nha-trang on the north-east coast of Vietnam), Pen-t'o-land chou (Pandurang now Phan-ran to the south of the last noted place), Chun-t'u-nung Shan (Kondor islan near south Vietnam), straits (Straits of Malacca, perhaps including the

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straits of Singapore), Ko-ko-seng-ti-kuo (Brouwers islands or an island at the mouth of the Siak river in Sumatra), Shen-teng Chou (on the east coast of Sumatra), P'o-lu- kuo (in north-west Sumatra), Ch'ieh-lun chou (one of the Nicobore islands), Ceylon, Malabar and the Persian Gulf(21). From Sumatra ships could reach Harikela (after touching ports on the coast of Burma including Arakan).

From the Nichbor islands a ship could sail towards the Chittagong area(a part of Harikela). In the first decade of the 15th century A.D. Ma-huan travelled by a ship from Tsui-lan (Nicobar islands) to Che-ti-gan (Chittagong). Favoured "with a fair wind' the ship took twentyone days to reach the destination(22). This route could have been used by the Arab merchants from an earlier period(23).

In the Chittagong region one can locate the great port of Samandar(24). It appears from Ibn Khurdadba's account that ships from West Asia could sail to inter alia Sind, Mali (Malabar), Sarandip (Sri Lanka) and Samandar and that Samandar was connected by a maritime route with Urasir (a part of the coast of Orissa(25). As a part of Harikela Samandar=Chittagong was connected by maritime routes also with South-East Asia and China, as well as parts of the peninsular India(25a). If Dahum, whose royal authorit over S(a) m(a) nd(a) r is referred to in the Hudud-al-Alam, was the same as the Pala King Dharmapala(26) (c. A.D 775-812) then the port might have come into prominence by the last quarter of the 8th century A.D. Al Idrisi suggested in the 12th century A.D. the international importance of the locality by stating that "one day's sail from this city was a larg island well populated and frequented by merchants of all countries(27)". This island is identifiable with that called Sandwip opposite Chittagong(2

As noted above, the commercial items (especially the inianimate ones) attributed to Ruhmi by the foreign writers should have been among the chief items of export from that territory, identifiable with the Pal Empire(29). That much of the export trade was conducted through Samandar (Chittagong) is indicated by Al Idrisi, who noted that aloe wood from

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Kamrut (Kamrupa) was used to be brought down to Samandar by a river, identifiable with the Brahmaputra, which was referred to as Samundar in the Tabaqat-i-Nasiri(30). Al-Idrisi further observed that "Samandar is a large town, commercial and rich, where there are good profits to be made.... Rice and various grains, especially excellent wheat, are to be obtained here"(31).

Information about import of foreign materials to the region is very scanty. Cowries (Kapardakas) surely formed a major item. They were brought mainly from the Maldivi islands, which was mentioned by Sulaiman as the source of cowries(32). Archaeological evidence of such import is furnished by a number of data including the discovery of a hoard of cowries during an excavation in the ruins of a monastery at Somapura (Paharpur, Rajshahi district), established in the period of Dharmapala(33) (C. A.D 775-812). Several later writers (from the 14th century onwards) described in details the trade in cowries between the Maldivi islands and Bangala or Bengala(34) in which these were probably received mainly in exchange of rice(35).

Another item of import could have been silver. In the early 16th century Tome Pires noted that silver was imported in large quantity into Bengal from Pegu(36). The import of this metal from south-east Asia might have began much earlier(37).

The statement of Al Idrisi that the island opposite Samandar was frequented by merchants of all countries (See above) suggests active participation of people of different countries (including Arabia, Sri Lanka, and some areas of South Asia and China?) in the external trade of the region concerned. Al Idrisi observed that "good profits" could be made by conducting trade with Samandar(38). In the first half of the 14th century, and so not long after our period, Ibn Batuta explicitly stated "nowhere in the world have I seen any land where prices are lower than" in Bangala(39). He further noted that the people of Khurasan used to call it "a hell full of good things"(40). So "good things" good in quality

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and quantity, and their comparatively cheap price attracted foreign traders to the region concerned.

The sources relevant to our period are silent about the participation of indigenous people in the maritime trade of the area in question. But we cannot discount its feasibility in view of the earlier evidence of voyages made by merchants from Tamralipti to different parts of South-East Asia(41). We may also note that in the early 15th century Ma-huan wrote that in Pong-ko-lo (Vangala) where "products are abundant", "the rich build ships, in which they carry on trade with foreign nations"(42). There is no evidence to prove that such a condition could not have been existed in some of the preceeding centuries.

The interest of ruling families in maritime trade is suggested by various data. The Hudud al-Alam refers to aloes (wood) an item of external trade, in a manner which indicates that trading in it was somewhat controlled by the king of Kamarupa and Dahum, i.e. Dharamapala(43) According to the same text, the port of Samandar was under the rule of Dahum(44). Early Pala rule in Samatata (Noakhali and Comilla districts) is attested by the Sian inscription(45), and hence the extension of the authority of the early Palas to the nearby Chittagong area was quite feasible. The international commerce of the Pala empire could have been routed through this port even after the effective control over it was lost by the Palas due to the rise of the Čhandras and other factors(46). It would have been profitable for the authorities in control of the vital coastal area to promote the international trade, as it was done later, by a sultan of Bengal (Alauddin Hussain Shah) (1493-1519) when he allowed the merchandise of the rebel kingdom of Pripura to pass through the port of the city of Bengala _Samandar =Chittagong(47). As pointed out above, Al Idrisi in the early 12th century A.D. alluded to the thriving commercial activities at Samandar. He also indicated this port had a big hinter land(48).

Such type of brisk trade would have made the merchants concerned or atleast many of them quite rich and yielded large amount of revenue to the royal coffer. A story in the Vallala-charita of Ananda-bhatta alludes to

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rich merchants and revenue earning potentialities of Harikela in the period of Vallalasena (c. A.D. 1158-1179((49).

Thus the coastal area of south-Eastern Bangladesh (included in Harikela, Samatata and Vangala) witnessed international trade during the period of the Palas and the Senas. Articles of commerce dealt with by traders of the empires of the Palas and Senas and some other areas of north India used to be exported by sea mainly through Samandar (Chittagong). Such type of maritime trade should have implied brisk internal and transit trade in the empires of the Palas and Senas and also in other areas of the vital coastal zone (when parts of it were not controlled by the Palas or Senas). The ruling authorities were interested in promoting revenue earning trade, external as well as internal (50).

Brisk trading activities over a vast territory could not have been transacted conveniently by barter only. There must have been more than one medium of exchange. An important medium of exchange was formed by Kapardakas or cowries(51), which were imported in large number (from the Maldivis)(52). Coin names (like dramma and purana) do appear in a few Pala inscriptions(53). They may refer to coins (like those bearing the legend Sri-Vigra) coming to the territory by way of trade and commerce(54), since the Palas or the Senas themselves did not strike coins bearing their names. But these imported coins, which are not found in the area concerned in large number, do not appear to have formed a regular currency of this territory. The name Karshapana in a later Pala record and the terms Purana and Kapardaka-purana in the Sena inscriptions have indeed been taken to denote a unit of currency counted in cowries and not regular coins(55).

Kapardakas (and even imported debased coins of law intrinsic worth), however, could not ordinarily have been conducive to the growth of industry and commerce as was witnessed in the Pala empire. Moreover, the problem of transporting a large number of cowries was always there. Payment in cowries through bills of exchange would not held at least itinerant traders, travellers and foreign merchants who wanted to buy

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commodities after taking decisions at the site of sale. Such people would naturally have preferred for an easily portable form of money having relatively high intrinsic value.

There are indeed indications of existence of a form of money of high worth and purity. The term churnni or churni (nominative singular of the stem churnin, meaning "made or mixed up with anything powdered or pounded") (56), used as a synonym of Karshapana or purana (i.e. a -silver coin of 32 ratis or a unit of currency of the same value) in some records of the Senas and few other rulers(57), should have primarily denoted "money in the form of dust of silver" (weighing 32 ratis). Sulaiman indicated in about the middle of the 9th century A.D the feasibility of the use of silver dust as a medium of exchange(58). A Tibetan account alludes to the utilisation of gold dust (put in small bags) as a form of money in the Pala empire in the second quarter of the 11th century A.D(59) Nine hundred (pieces of) hema("gold") referred to in the Silimpur inscription of c. 12th century A.D.,(60) may then denote gold pieces, each weighing 80 ratis, which was the standard weight of suvarna("gold") coins.

Thus the territory under review had units of metal (gold and silver) currency as well as Kapardakas to facilitate buying and selling commodities. 1280 Kapardakas or cowries were equal in value to one unit of silver in the form of dust or metalic piece weighing (about) 32 ratis (61). Following a table furnished in the Lilavati(62) we may presume that 16 such silver units (called dramma, Purana, Karshapana or churni) were equal in value to a piece of gold (called nishka, suvarna, hema etc) weighing (about) 80 ratis. Such an amount of gold (in the form of dust or metallic piece) was worth 20480 cowries. If debased coins from outside came into circulation in the territory concerned, each class of them would have its own rate of exchange with cowries fixed according to its intrinsic worth.

There is also evidence of the existence of a regular silver coinage in an area of the territory during the period concerned. The area in

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question was known as Harikela(which initially include the Chittagong district, and later, by the 9th-10th century A.D., the Noakhali and Commilla districts, and, by then or little later, also the Sylhet region). It had, from about 7th century A.D., a silver coinage based typologically, stylically and metrologically on the silver specie of the "Chandras" of nearby Arakan. The name Harikela is inscribed on the specimens of the series in question. This series was succeeded by another series of silver coins, having thinner and larger flan and lesser weight. Palaeographical features of the legend on the coins of the second series suggest that these were in circulation from about 8th or 9th or 12th or 13th century A.D(63).

These coins, bearing a recumbent bull on the obverse and generally a blank reverse, are known at least in two denominations. The weight of the coins of the higher denomination generally varies from 2.3800 to about 3.3660 gms(64). The relevant weight standard is not connected with that of the earlier series, but is comparable with that of Puranas (of 32 ratis or about 56 grains or 3.628 gms). However, the fabric, shape and size of these pieces, have striking similarity to thin Aldasid coins, some of which might have come to the area concerned by way of trade and commer(65). Thus we cannot altogether deny the possibility of the die-cutters of the second series of coins of Harikela having been influenced by the shape and size of the class of foreign coins. Atleast there is no doubt that the mint-masters of the second series of Harikela coins adopted an indigenous weight standard. Imported as well as indigenous silver could be used to mint these coins(66).

Both the first and second series of Harikela coinage may have local varieties, bearing names of places which can be located within the limits of Harikela(67). These names and the name Harikela show that the coins concerned bear the names of regions or localities(68). So even if they were struck during our period by political authorities (like the Palas Chandras, Varmans(?) and Senas), they did not care to inscribe their names in the coin legends. On the other hand, different local varieties

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of Harikela coinage may suggest that atleast these could have been struck by local bankers and guilds, if not by local political authorities. In any case, the high purity of metal in the silver coinage of the second series (consisting of regional and local varieties)(69) proves that it was always minted by well organised persons with an intention to maintain its credibility. The weight of the coins of higher denomination indicate that they could pass as puranas and could be exchanged with a unit silver dust of 32 ratis or piece of equal weight or with 1280 cowries. In the international trade they could be accepted as dependable bullion of fixed weight(70). It appears that a feeling of urgency for the acceptance of the coinage of Harikela in trade ensured its continuity and purity and that too even at times when the region was (atleast partly) within the Pala or Sena empire, which otherwise did not have any coinage of its own.

It appears that mid-eastern India in the period ranging from c. A.D 750 to 1200 had a very complex system of currency. It base was sustained by Kapardakas or cowries. There was no coined money in the major portion of the territory, though outside coins could found their way to it by way of trade and could have been used according to their intrinsic worth. But large transactions in commerce and other fields could have been carried on regularly in inter alia units of silver and gold dust (or pieces) (former weighing 32 ratis and latter 80 ratis). The units of silver dust were exchangeable with silver coins of Harikela. Here the silver coinage was sustained through a comparatively higher pressure of trade and a constant demand for a medium of exchange consisting inter alia of a great number of easily portable and countable pieces of relatively high value. This area probably had enough quantity of silver imported from outside. Genuine copper coins do not appear to have been struck in the zone and period under review.

As the silver coinage of Harikela had different denominations, so also units of calculation or value could have been known not only as purana or Karshapana(of 32 ratis), but also, like the coins of the same name, could have submultiples like pana, Kakani, vuttika (or budi)

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and gandaka(ganda). A gandaka was worth 4 cowries, a kakani 20 cowries a pana 80 cowries, and a Karshapana 1280 cowries(71). The high antiquity of the familiarity of the territory under review with these submultiples is suggested by the occurrence of the word gandakehi (i.e. gandakaih) meaning "with gandakas", in the Mahasthan inscription of the Maurya age(72).

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The complex currency system satisfied the need of trade, the growth and diversification of which are attested to by available sources. There was no unusual decline of trade in any phase of the period under review. In fact, ample archaeological and literrary evidence of the use of cowries (73) presumably imported from overseas, allude to maritime trade throughout the period. A coin of the Abbasid Caliph Harun-ar-Rashid (dated A.H 172 A.D. 788-789), unearthed at Paharpur(74), and another piece struck by the Abbasid ruler Abu Ahmed Abdallah al Must asim Billah (A.D 1242-1258), recovered at Commilla(75), might have found their to the territory concerned through trade.

There was also no dearth of media of exchange. However, though the ruling authorities were interested in trade, none of them struck coins, at least not in their names. Minting of coins was perhaps not considered as a royal prerogative. Hence even units of dustof silver or gold could serve as media of exchange. In fact, they should have served the trade better than coins of doubtful value. When coins were minted in an area of the territory under review purity of metal had to be maintained, again for their ready acceptability for commercial transactions.

The degree of monetisation of trade was quite high, though it was not carried on exclusively or even mainly with coins(76). The royalty was interested in trade and money, but not necessarily in coins. External trade perhaps boosted the necessity of maintaining viable media of exchange in the territory concerned in the early mediaeval period.

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Footnotes:

(1) For the history of the Pala and Sena empires, see R C Majumdar, History of Ancient Bengal, Calcutta 1971(cited below as HAB), pp. 94f.

(2) Ibid., pp. 94f and 346-347.

(3) Ibid., pp. 346-347; L. Gopal, The Economic Life of Northern India, c, A.D. 700-1200, Delhi etc. 1965, pp. 108-111.

(4) See our paper "Money Trade and Rulers in Mid-Eastern India (c. A.D 750-1200)" to be published in the proceedings of the seminar on Trade and Patterns of Commerce in India, c. A.D 700-1200, held in New Delhi in July, 1983. See also HAB, pp. 341f.

(5) See our article mentioned in no. 4.

(6) It is quite clear from various accounts of the Kingdom in question (described inter alia as a vast territory having a coastal area and also as contiguous to the inimical kingdoms of Jurz or Gujra and Ballah-ra) that it should be identified with the powerful Pala kingdom at a time when it was often engaged in war against the neighbouring kingdoms of Gujra (i.e. the Gurjara Pratiharas) and Ballah-ra (i.e. The Ballabharajas or the Rashtrakutas (Sulaiman, Salsilatu-t Twari p. 50 (of Ferrand's translation); Ibn Khurdadba, Kitabu-I Masalik wa-l Mamalik, 67; Al Mas'udi Muruja-I Zahab, I, 384; H M Elliot and J. Dowson, The History of India as Told by its own Historians (cited below as HIOH), vol I reprint, Allahabad, 5, 13 and 25). As suggested by S.H Hodivala, the expression Ruhmi (or Rahma), denoting the Kingdom concerned, is a scribal error for Dharmi(or Dharma) (S.H Hodivala Studies in Indo-Muslim History, A Critical commentary on Elliot and Dowson's History of India as Told by its own Historians), Bombay, 1939 pp. 4-5). In fact, a variant reading of the name, as furnished by Ibn Khurdadba, is D. hmi. In the Hudud al Alam the name is given as Dahum and has been used as a personal as well as a territorial appellation (sections 5, 6,7 and 10; V. Minorsky, Hudud al-Alam, 'The Regions of the World', A Persian Geography, 372 A.H - 982 A.D., London, 1937, pp. 62, 72, 80, 87; see also pp. 236-237).This is quite feasible if the name is considered to stand for the kingdom of Dharmapala. It is

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also noteworthy that Al Masudi took the name concerned as "the title for" the kings of the kingdom in question and "generally at the same time their name" (HIOH, vol I p. 25). This statement becomes explicable if here is a reference to the kingdom of the Pala monarch Dharmapala, the members of whose family had the element-pala as a component part of their names, almost as their dynastic title (like the Imperial Guptas of Magadha, who were referred to as the Guptanathas "Gupta Lords", in the Mandasor inscription of Yasodharman). As the account of Sulaiman, the first account of a Muslim author referring to the kingdom concerned, was dated in 237 A.H (or A.D 851) (ibid., p. 2), it could easily allude to the territory ruled by the Pala king Dharmapala (c. A.D 775-812). Thus at least the source of Sulaiman's information on the Pala empire can be dated to the age of Dharmapala. Basically the same information was furnished by the later Muslim writers.

(7) HIOH, vol. I, p. 5.

(8) Ibid., p. 14.

(9) Ya'quibi, History, I, 106; V. Minorsky, op. cit., p. 237.

(10) Hudud al-Alam, 10, 7; V. Minorsky, op. cit., p. 87. According to the Kavyamimamsa (XVII, 93), Purvadesa (in which section were the Pala and Sena kingdoms) grew different species of fragrant plants and trees, as well as aloes and grapes.

(11) See above n. 10.
HIOH Vol. I, p. 25

(12) Ibid., vol. II, p. 308.

(13) F. Hirth and W W Rockhill, Chau ju-kua; His work on the Chinese and Arab Trade in the Twelfth and Thirteenth Centuries, entitled Chu-fán-chi, St. Petersberg, 1911 p. 97. In the Manasollasa appears a list of fabrics for the king's use. It includes the fabrics made in Vanga (III, 1017-1120)

(14) H. Yule, Book of Ser Marco Polo vol II London, 1875 ch. LV p. 97.

(15) Al Masudi, op. cit., HIOH, vol I p. 23.

(16) Sulaiman, op. cit., pp. 44 and 105 (of Ferrand's translation).

(17) Several stories in the Kathasaritsagara of Somadeva of the 11th century A.D. refer to the merchants of Tamralipti and to sea-voyages undertaken from that port. But these stories might have been based on legends of

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much earlier times. The Dudhpani inscription of c. 8th century A.D., which refers to the visit of three merchant brothers of Ayodhya to Tamralipti and their earning of great wealth there, seems to be the last important epigraphic evidence of the commercial activities of that locality.

(18) T Watters, On Yuan Chwang's Travels in India, vol II, London, 1905, pp. 189-191; R C Majumdar, Hindu Colonies in the Far East, 1st edition, Calcutta, 1944, p. 197.

(19) J. Takakusu, A Record of the Buddhist Religion as practised in India and the Malay Archipelago (A.D. 671-695) by I-tsing, reprint, Delhi, 1966, p. XLVI; S, Beal, The Life of Hiuen-Tsiang by Shaman Hwui-li, reprint, Delhi, 1973, pp. XXXIX XL and XLI.

(20) S. Beal, op. cit., pp. XXV-XXVI.

(21) T'ang-shu, ch. 43b, pp. 18B-19B; Journal of the Malay Branch of the Royal Asiatic Society, vol. XXXI, pt. 2, pp. 104-105.

(22) Journal of the Royal Asiatic Society of Ireland and Great Britain, 1895, p. 529.

(23) For examples we can refer to the routes described in the Akhbar al-Sin w-al-Hind and Ibn Khurdadba's Kitabu-I Masalik wa-I Mamalik (G.H Hourani, Arab Seafaring in the Indian Ocean in Ancient and Early Mediaeval Times, Princeton, 1951, pp. 71-72).

(24) Journal of the Asiatic Society of Pakistan, 1967, vol. VIII, pt. II p. 17f.

(25) HIOH, vol. I, p. 16. Chau-ju-kua referred to a (land-cum-sea) route from China to Chu-lien (chola territory in South India) through P'u-kan (Pagan in Burma)(F. Hirth and W W Rockhill, op. cit., p. 94) Apparantly the ships from the Chola territory touched Arakan before its occupants could leave for Pagan. The ships, following this route, could go, if their owners wanted, to Harikela situated to the north-east of Arakan.

(25a) See above n. 25.

(26) Hudud al - Alam, 10, 7.

(27) Al Idrisi, Nushatu-I Mushtak, First climate, section X; HIOH, vol I, p. 90. See also below n. 29.

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(28) According to Al Idrisi, this island was "four days distant from Sarandib" (HIOH, vol. I p. 90). This indicates at least direct communication (through a maritime route) between the island and Sarandib or Sri-Lanka.

(29) See above n. 6. Merchant Sulaiman himself saw a piece of fine stuff of cotton exported from Ruhmi. He observed that "so fine and delicate is this material that a dress made of it may be passed through a isgnetring" (ibid., vol. I, p. 5).

(30) HIOH, vol. I, p. 16; vol. II, p. 307. This evidence shows that Al Idrisi was wrong in describing Samandar as a port "dependent upon Kanauj, the king of this country" (Ibid., vol. I, p. 90). Al Idrisi noted Samandar was on a river coming from "the country of Kashmir". The expression "the country of Kashmir" probably denotes the Himalaya region, from which flows down the Ganges, near the mouth of a branch of which (Padma) and on the sea stands Chittagong (Samandar).

(31) Ibid., vol. I, p. 90. In the 14th century A.D. Ibn Batuta described Bangala (Vangala?) as "a vast country, abounding in rice" and "a hell full of good things". (H.A.R. Gibb, Ibn Batuta, Travels in Asia and Africa, 1325-1354, London, reprint, 1939, p. 267).

(32) Sulaiman quoted in A. Gray, The Voyage of Francois Pyrard de Laval, vol. II, London, 1889, p. 429.

(33) K N Dikshit, Excavations at Paharpur, Delhi, 1938, p. 33. A large number of cowries have been unearthed during excavations at a monastic site at Antichak (Bihar) dated to the Pala Age.

(34) The term Vangala initially meant the lower part of Vanga and included the Barisal and Khulna districts. Sometimes the name might have extended to the east of the Meghna, where lay Chatigrama or Chittagong. Later the connotation of the name expanded to denote a large territory (called Bengal) (HAB, pp. 11-12).

(35) For examples we can refer to the writings of Ibn Batuta (14th century A.D) (H.A.R Gibb, op. cit., pp. 243and 267), Ma-huan (early 15th century) (JRAS, 1895, p. 530), Tome Pires (early 16th century A.D) (Suma Oriental, III), and Pyrard de Laval (early 17th century) (A. Gray, op. cit., vol. I, pp. 237-238 and 438).

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(36) Suma Oriental, bk III.

(37) In the 2nd century A.D. Ptolemy by the name Argyras Khoras (i.e. Silver country) denoted an area with mines of silver (VII, 2, 17). The name probably meant a part of Arakan, a silver producing region. During the period under review Arakan had surely contacts with Harikela (which ultimately included the Chittagong, Noakhali, Comilla and Sylhet districts) (R C Majumdar, Hindu Colonies in the Far East, pp. 202f; Bangladesh Lalitkala, 1975, vol I, no. 2 pp. 117-119). In the early 16th century Tome Pires referred to the trade between Arakan and Bengal (Suma Oriental, bk III).

(38) HIOH, vol. I, p. 90.

(39) H.A.R.Gibb, op. cit., p. 267. Ibn Batuta wrote that "I have seen fat fowls sold there at the rate of eight for a single dirham, young pigeons at fifteen to the dirham, and a fat ram sold for two dirhams. I saw too a piece of fine cotton cloth, of excellent quality, thirty cubits long, sold for two dinars, and a beautiful slave girl for a single gold dinar, that is, two and a half gold dinars in Moroccan money".

(40) Ibid.,

(41) HAB, p. 346; see also above n. 17.

(42) JRAS, 1895, p. 530.

(43) Hudud al Alam, 10 7.

(44) Ibid.,

(45) B N Mukherjee, "Preface" in A K Majumdar, Concise History of India, Vol. I,II, New Delhi, 1983, p. XVIII.

(46) M. Chaudhary, Dynastic History of Bengal, Dacca, 1967, pp. 154f.

(47) Suma Oriental bk. III.

(48) HIOH, vol. I, p. 90.

(49) D. Dhar (translator) Vallalacharitera Vanganuvada, Calcutta 1904, p. 17.

(50) Ma-huan observed in early 15th century that in Pong-ko-lo (Vangala) "the king fits out ships and sends them to foreign countries to trade. Pearls and precious stones are sent to China". (JRAS, 1895, p. 533.

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(51) Sulaiman clearly stated in his Salsilatu-t Tawarikh in about the middle of the 9th century A.D. that in the kingdom of Ruhmi (i.e. the Pala Empire) "trade is carried on by means of Kauries, which are the current money of the country" (HIOH vol. I, p. 5). The Pala ruler Madanapala maintained his army by paying cowries (as wages) (Sandhyakaranandi, Ramacharita, LV, 36). In the territory of Rae Lakhmaniah (king Lakshmana) i.e. Lakshmanasena) Kauri was the current money and "the least gift he used to bestwo was a lac of Kauries" (H.G. Raverty, The Tabaqat-i-Nasiri, vol I, reprint New Delhi, 1970, p. 556).

(52) Tome pires noticed in his Suma Oriental that cowries were imported in large quantities from the Maldivi islands (Suma Oriental, bk: III; see also A. Cortesoa's translation, vol I, p..95).

(53) For references see D.C. Sircar, Numismatic and Epigraphical Studies, Calcutta, 1977, pp. 49f.

(54) L. Gopal, Early Mediaeval Coin-Types of Northern India Varanasi, 1966, pp. 14-16. These coins were known as Vigraha-dramma, Vigrahapala-dramma, Vigrahatungiya-dramma and Vigrahapaliya-drama (Epigraphia Indica, vol. I, pp. 167f).

(55) S.K. Chakravarti, "Kapardaka Purana" Indian Historical Quarterly, vol. VIII p. 599; D.C. Sircar, op. cit. pp. 49 and 52.

(56) M Monier-Williams, A Sanskrit-English Dictionary, reprint, Oxford, 1951, p. 401.

(57) D.C. Sircar, op. cit., p. 50. According to Oriya Lexicons, both churni and purana are synonyms of kahana (karshapana), which was equal in value to 1280 cowries. However, in some areas one churni consisted of 100 cowries only (ibid., p. 50; see also M. Monier-Williams, op. cit., p. 401).

(58) HIOH vol. I, p. 4.

(59) S. Das, Indian Pandits in theLand of Snow, reprint, Calcutta, 1965, p. 60. Nag-tscho, who was sent (in the second quarter of the 11th century A.D.) to the Vikramasila monastery (in the Pala Empire) to request for Atisa's visit to Tibet, used gold dust "in small bags" for meeting expenses. The relevant Tibetan account also refers to the use of cowries in that monastery and at Bodh-Gaya.

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(60.) EI, vol. XIII, p. 292.

(61) The use of the word Churnika (i.e. churni) as a unit of money is indicated even in the post-Gupta and pre-Pala record like the Jayrampur copper-plate inscription of Gopachandra (6th century A.D). It refers to the fixation of annual tax of a land at 100 churnikas. The amount is referred to as arya-pindaka or "a suitable lump" sum (M. Monier-Williams, op. cit., pp. 152 and 625). The use of "dust" money in the case under review may indicate paucity of regular pure (silver) coins in the zone and period concerned.

(62) Bhaskaracharya, Lilavati, 1, 2; D.C. Sircar, op. cit., p. 51.

(63) For detailed discussions on the coins of Harikela, see our articles in different journals like the Bangladesh Lalitkala, 1975; vol I, no. 2; pp. 115f; Journal of the Asiatic Society, 1976, vol. XVIII, pp. 99-101; Coin Review, vol. III-IV, 1976, pp. 2-3; Journal of Ancient Indian History, vol. X, pp. 166f; etc.

(64) See above n. 15.

(65) Numismatic Supplement, 1934, no. XLV, p. 75; A K M Shamsul Alam, Mainamati, pl. IV, no. a and p. 51. See also the Proceedings of the Pakistan History Conference, 1961 pp. 184-189.

(66) See above n. 37. The availability of imported silver was perhaps one of the factors responsible for good silver coinage of not only Harikela, but also of Bengal Sultans, Tripura and Assam. In this connection see also T. Raychudhuri and I. Habib (editors), Economic History of India, vol. I, C. 1200 - c. 1750 Cambridge, 1982, pp. 96f.

(67) JAIH, vol X, pp. 168f.

(68) Ibid.

(69) Silver forms more than 80% of the total content of the Harikela silver coins. In certain specimens it is as high as 93.8%.

(70) For a similar situation in a later period see Tome Pires, Suma Oriental, bk. III.

(71) D.C. Sircar, op. cit., pp. 50-51.

(72) D C Sircar, Select Inscriptions Bearing on Indian History and Civilisation vol. I, 2nd edition, Calcutta, 1965, pp. 79-80.

(73) See above nn. 33, 53, and 59.

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(74) See above n. 64.

(75) See above n. 64.

(76) This inference goes against the theory that the absence of coins (one of the media of exchange) indicates decline of trade in the empires of the Palas and Senas (R.S. Sharma, Indian Feudalism, c. A.D. 300-1200, 2nd edition, Delhi, 1980, pp. 102 and 221; Coins and Early Indian Economy, Varanasi, 1976, p. 136). It should also be remembered that even small "more or less self-sufficient economic units", with potentialities of producing surplus products of quality, would require outside markets within and/or outside the empire. As we stated above, the territory and period concerned witnessed internal, transit and also external trade. (In this connection see also the Indian Museum Bulletin, vol. XIV, nos 1-2, 1979, pp. 56f).

We cannot also categorically assert that there was a real dearth of coins all over the subcontinent in the early mediaeval period (c. A.D. 750-1200). For an account of the complex system or systems of media of exchange (including coins) in that age, see A.S. Altekar and B.N. Mukherjee, "Coinage", A Comprehensive History of India, vol. III, pt. II (edited by R C Majumdar), New Delhi, 1982, p. 1414.

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SOME NEW NUMISMATIC EVIDENCE REGARDING ROYAL NOMENCLATURE AND TITULATURE IN THE GHURID PERIOD

WILLIAM F. SPENGLER

I am currently engaged in historical and numismatic research in India and Pakistan for a dissertation on Sultan Muiz-ud-din Muhammad ibn Sam ("Muhammad Ghuri") and his Turkish lieutenants and successors in the Punjab and Sind. Since the historical record surviving from the literature of those times is so sparse and often contradictory, I am looking comprehensively at the ample numismatic evidence, in addition to a few archaeological and epigraphic remains, to determine how they might contribute to better understanding of the literary evidence.

In fact, I have already found that the numismatic evidence can add much to our knowledge of Muhammad Ghuri and his times if it is properly assembled and interpreted, although this field of enquiry has been woefully neglected since Edward Thomas published his Chronicles of the Pathan Kings of Delhi over a century ago. The coins provide especially useful insights into the personal nomenclature and changing titulature of rulers, and the extent of their governance through analysis of the mintnames and dates, among other things. They also serve well as an authoritative check on historical assertions appearing in various surviving literary sources. And, of course, to us as numismatists, a thorough examination of the coinage is valuable in and of itself.

I propose to present a comprehensive corpus of the coins of the Ghurids and other contemporary rulers associated with them as part of my dissertation. This paper offers just a few examples of the kind of new historical information which can be, and has so far been developed

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from close examination of the coins of the Ghurid period.

I. "Abu-l Muluk", a New Kunya for Khusro Malik Ghaznavi.

It is fairly well established in history that Baladah Ghaznah, the ancestral seat of the once-powerful Ghaznavid empire, was seized by a marauding horde of Turkish Ghuzz tribesmen in 557 or 558 A.H. (corresponding to 1162 or 1163 A.D -- hereafter expressed as 557/1162 and so forth), forcing the reigning Ghaznavid Sultan Khusro Malik, to flee and take refuge in his eastern province of Hindustan(1). A pathetic personage in history, Khusro Malik had become Sultan only about two years earlier, on the death of his father Khusro Shah, and spent the rest of his much-beleaguered life in and around Lahore defending himself from a host of enemies.

Historians agree that "great discrepancy prevails" among various medieval authorities concerning the lives and careers of the last three Ghaznavid Sultans: Bahram Shah, Khusro Shah and Khusro Malik. Regarding the latter, Raverty, after weighing all the evidence available to him, including the numismatic, seemed to favour the version recorded by Yahya Khan in the Tazkirat-ul-Muluk, among others, to the effect that Khusro Malik ascended the throne in 555/1160, fled to Hindustan about 557/1162 and met his death at the hands of the Ghurids some time after being captured in Lahore around 582/1186(2). With his death the Ghaznavid dynasty ended.

Of Khusro Malik's nomenclature and titulature, we know from literature only that he carried the laqab Taj-ud-daulah, in addition to his ism (given name), and that he was known popularly as Sultan-i-Halim, "the mild Sultan"(3). Minhaj is conspicuous in not referring to him as Sultan al-'azam, the royal laqab used for all his Ghaznavid predecessors; however, we know from several common coin types that he claimed that hereditary royal title for himself until his very downfall.

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Coins of Khusro Malik with the laqab Taj-ud-daulah are also quite common. A dirhem in the British Museum(4), dateable to 555/1160 (despite its lack of a date) or soon thereafter because of the appearance on it of the name of the 'Abbasid Caliph al-Muqtafi who died in that year, carries this laqab, indicating that Khusro Malik had adopted it from the beginning of his reign even before fleeing to Lahore. Taj-ud-daulah also appears on a rather rare series of dirhems of Khusro Malik with the name of the Caliph al-Mustanjid (555-566/1160-1170) as well as on common copper coins whose fabric suggests issuance from Lahore or other mints in Hindustan. Some of them are crude in style and bear the familiar reclining bull which the Ghaznavids had borrowed from the Hindu Shahis.

Another well-known copper coin type reveals that Khusro Malik employed a different laqab -- Seraj-ad-daulah -- evidently later in his career. While this type carries only the ruler's royal title, laqab and ism, and no mintname or date, my analysis of its style and provenance, including evidence from coin hoards, suggests strongly that it was struck in Lahore during Khusro Malik's long exile there and may well have served as the basic "penny" coinage of his later reign.

Of much greater interest and mystery, however, is a series of more scarce small copper (or billon) coins of Khusro Malik bearing neither of the foregoing laqabs but, instead, a formulation which has been long-discussed and badly misread, by South Asian numismatists until now. Of the two varieties of this coin type, both with the ism Khusro alone, one styles him Malik as-Sultan al-azam and the other Malik as-Sultan al-'adil. More intriguing, however, is the appearance of a strange epithet on the fourth line of the obverse of each, in crude, angular calligraphy. This was read by 19th century scholars (Lane-Poole et al) as al-Mustanjid(see above), an interpretation routinely repeated by all authorities since then including Mitchiner in his monumental World of Islam(1978)(5).

A fresh examination of this coin type and reconsideration of the problem, based partly on two small groups of the Sultan al-'azam type

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acquired in Peshawar several years ago, reveals that the line in question does not contain the name of the Caliph at all, but rather a completely new epithet for Khusro Malik: Abu-l Muluk meaning "Father of Kings" - the only kunya yet discovered for this ruler. This bit of historical ephemera was reconfirmed recently by my discovery of an unpublished and possibly unique silver dirhem in the cabinet of the Ashmolean Museum at Oxford bearing the Kalimah, the name of Caliph al-Mustanjid, the title Sultan al-'azam and the ism Khusro Malik, and the kunya reading clearly (to me) Abu-l Muluk. The original ticket with this coin, evidently in the hand of Mr Thorburn from whose collection the Ashmolean acquired it in 1966, transcribed the fourth line of the reverse as الملك الملوك thus noting the muluk correctly but misreading the abu as al-malik. Thorburn also identified the mintname on the marginal legend as Ghaznah and the date as 562, neither of which I could confirm with magnification.

It is fascinating and tempting to speculate about the inspiration for Khusro Malik's use of this decidedly unusual kunya. (I have only found it used once before in a South Asian context, in one manuscript version of the Tabaqat-i-Nasiri as a kunya for Muhammad Ghuri's paternal grandfather Malik Izz-ud-din al-Husain, while all other manuscripts were found by Raverty to read Abu-as-Salatain; so Abu-l Muluk here may have been an error (6)). We know from Minhaj that Khusro Malik had atleast six sons -- Bahram Shah, Mahmud Shah, Jahan Shah, Masud Shah, Malik Shah and Khusro Shah -- and that Bahram Shah, the eldest and heir apparent, was imprisoned by the Ghurids and executed soon after his father(7).

I referred above to Khusro Malik as a "pathetic" personage in history. His troubled life does seem to embody all the pathos of a Greek tragedy. Could it be that, beset by misfortunes or even agonizing over the fate of his once-illustrious dynasty, Khusro Malik deliberately adopted the kunya "Father of Kings" to somehow challenge the fates and affirm that his line would continue, or atleast to buck up the sagging spirits of a faltering dynasty? I am inclined to think so. Whatever the case, we now have a new piece of epigraphic evidence from numismatics to add to the sparse literary record of the last Ghaznavid monarch.

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II. Clarifying the Changing Personal Nomenclature and Royal Titulature of Muhammad Ghuri

Most of the biographic information we possess regarding Sultan Muiz-ud-din Muhammad ibn Sam ("Muhammad Ghuri") and elder brother and sovereign Sultan Ghiyas-ud-din Muhammad ibn Sam is embodied in a scant 40 pages of Maulana Minhaj-ud-din's Tabaqat-i-Nasiri and similar passages in a few other contemporary or near-contemperary authorities like al-'Atar, 'Aufi, Nizami and Yafa-i. We learn that these two princes were born, a little over three years apart, of the same mother, the Malikah of Kidan. We are not favored with the dates, but they must have been around the middle 1130's A.D.

In terms of personal nomenclature, we are told that both boys were given the ism Muhammad at birth, and that their mother nicknamed them "Habashi" and "Zangi', respectively - presumably to be able to distinguish between them and supposedly because both were of dark complexion(8). Their father, the first full-fledged Ghurid Sultan al-'azam, Baha-ud-din Sam ibn Husain, died of an illness in 544/1150 after reigning only a few months, and was succeeded by his brother, the infamous 'Ala-ud-din Hussain, known to history as Jahan-soz(" the World Burner"). He promptly confined his two nephews in a fortress in Waziristan to preclude any threat to his power from their partisans(9). On coming of age, presumably in the early 1150's, the elder of the two brothers was given the laqab Shams-ud-din, and the younger Shahab-ud-din.

Changes in the Brothers' Laqabs:

When Sultan 'Ala-ud-din died around 556/1161, apparently from natural causes, he was followed on the throne by his son Saif-ud-din Muhammad, a young man who took compassion on his equally youthful cousins, released them from their 12 year confinement, and gave them favored places in his service. Shams-ud-din was invited to attend his cousin the Sultan al-'azam at court in Firuz-koh while Shahab-ud-din was posted

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with his paternal uncle, the Sultan of Bamian. Then when the young Sultan died by assassination less than two years later (558/1163) the Ghurid power élite -- the so-called "Amirs and Maliks" or "Chihil-gani" -- chose young Shams-ud-din Muhammad to occupy the Ghurid throne.

As soon as he received news of his brother's elevation to the Sultnate, Malik Shahab-ud-din took leave of his uncle and hastened to Firuz-koh. His brother received him warmly, appointed him Sar-i-Jandar (chief armor-bearer) and assigned to him the southern Ghurid territories of Istiah and Kanjuran to govern. But, as the chronicler points out, "he (Shahab-ud-din) used to be always in attendance on his brother"(10).

One of the new Sultan's first acts, the reason for which is not elucidated, was to change his personal laqab from Shams-ud-din to Ghiyas-ud-di which he proceeded to carryfor his entire long reign of 41 years. "Several years later", we were informed, in recognition of certain military success in Khurasan (of which we are given no details), young Shahab-ud-din's laqab was changed to Muiz-ud-din which he also employed for the rest of his long life. The literature suggests, however, that for the time being he retaine the ordinary (for a prince) title Malik, though we are not told of what class.

This change in Muhammad Ghuri's laqab must have occurred slightly before 569/1174 as I have examined a silver dirham of that date on which he is identified as "Muiz-ud-dunya wa ad-din". I have, however, also discovered one coin of this younger Muhammad ibn Sam bearing the laqab Shahab-ud-din along with the title Malik al-mu'azam ("the mighty chief") Since it also cites the name of the Caliph al-Mustadi who became 'Abbasi Caliph in 566/1170, it seems clear that his change of laqab -- as well as the victory in Khurasan -- can be dated between 566 and 569 A.H.

One important reason for knowing the fact and timing of this chang in laqab by "Muhammad Ghuri" is that he has come to be known by entirely the wrong name by generations of historians and students in India

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including the parts which have become Pakistan and Bangladesh. This canard appears to have been perpetrated by British and/or Indian writers of text books and designers of curricula in the late 18th and early 19th century and to have stuck ever since, but its origins may well go back to commentators such as Firishta who did not fully comprehend the earlier times of which they wrote -- a point which I intend to investigate. I refer, of course, to the persistent identification of Muhammad Ghuri as "Shahab-ud-din" rather than as "Muiz-ud-din", the laqab he employed exclusively during the last 40 years of his life, including the entire time he was associated with Hindustan.

Some examples are aposite. I found during my recent visit to Pakistan that every scholar with whom I talked about my research "corrected" me when I referred to Muhammad Ghuri as "Muiz-ud-din". The typical response was: "Oh, you must mean Shahab-ud-din Ghuri!" and when I asked an audience of 60 history faculty and students how many of them knew Muhammad Ghuri as "Shahab-ud-din", almost every hand went up; no one responded to "Muiz-ud-din". Not that this mistaken impression is confined to Pakistan. I have drawn many similar reactions in India. They were perhaps epitomized by a statement I happened to read while enroute to India in a historical sketch included in the current Indian Airlines tourist magazine to the effect that Muslim rule was introduced in northern India in the late 12th century by a Turkish "slave" general named "Shahab-ud-din Ghuri".

How this misnomer could have remained uncorrected for so long is baffling, especially when the literary evidence from original sources as well as the numismatic evidence is so clear on the point. Regarding coins, while I have seen thousands bearing the laqab Muiz-ud-din for Muhammad ibn Sam Ghuri, I have observed only a single coin with his name rendered Shahab-ud-din. It is to be hoped that something can soon be done by historians, with the help of numismatists, to rectify this error once and for all.

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The Ghurid Brothers' Kunyas:

We also know from the literary sources as well as from almost all the Ghurid coin types that the two brothers carried distinct kunyas all their adult lives: Abu-l Fateh by Ghiyas-ud-din and Abu-l Muzaffar by Muiz-ud-din. Since both had the same ism (Muhammad) and, naturally, the same nasab (ibn Sam), knowledge of their respective kunyas is often useful in helping attribute coins to one or the other when the distinguishing laqabs, Ghiyas-ud-din and Muiz-ud-din, and/or their royal titles, are unclear or not present. Caution must be taken in this connection, however, not to confuse Sultan al-'azam Abu-l Fateh Muhammad ibn Sam with the contemporary Sultan al-'azam Abu-l Fateh Muhammad ibn Sultan, the form invariably used by 'Ala-ud-din ibn Takash, the Khwarazm Shah (597-617/1200-1220).

Muhammad Ghuri as Sultan:

The only other significant detail which the literary sources provide concerning Muhammad Ghuri's titulature is the fact that, as a reward for seizing Ghaznah from the intruding Ghuzz, he was "placed upon the throne of the Mahmudis" (i.e. assigned the Ghaznah area to rule) by his brother and finally awarded the royal title of Sultan. In one of his rare citations of a date, Minhaj places this event in 569/1174(11).

The foregoing is all we know from literary sources about the names and titles of the Ghuri brothers. In particular, while we know when and why Muhammad Ghuri was promoted from the noble rank of Malik to the royal rank of Sultan, we are told nothing of his progress through intermediate stages of these two ranks. Here the numismatic evidence serves well to fill in the gaps. I am currently in the process of sorting out this rather complicated question and have only reached tentative conclusions about it. But I have found laqabs on the legends of coins identifying Muhammad Ghuri, progressively, as Malik al-mu'azam ("the mighty chief") and Malik al-'azam ("the most mighty chief") as well as the better known Sultan al-mu'azam and, finally, Sultan al-'azam after his brother's death in

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599/1202.

Since the term al-malik al-mu'azam, if correctly read by Sourdel(12), occurs on the gold dinar issued by Muhammad Ghuri as "Shahab-ud-din" bearing the name of the Caliph al Mustafi (566-575/1170-1180), I am inclined to date his use of this modest title between his investiture as governor of Istiah and Kanjuran around 559/1164 and the time his laqab was changed to Muiz-ud-din between 566/1170 and 568/1172.

The next higher title al-malik al-'azam is also rare, but it is known to have occurred. I have found it used on a joint issue of Muhammad Ghuri (as Abu-l Mazaffar Muhammad ibn Sam) in the name of his brother, Sultan al-'azam Abu-l Fateh Muhammad ibn Sam, under the same Caliph, which suggests a date a year or two before 569/1173 when Muiz-ud-din became a full-fledged Sultan. A perplexing problem with this coin type is that not only does it omit the personal laqabs of the two brothers, which might have helped place it more precisely in time, but it applies the grandiloquent and seemingly-presumptious title "Shaha-e-Shah ghazi" to Muhammad Ghuri, the junior of the two.

سها شاعازی

From the time of his elevation to the rank of Sultan in 569 until his elder brother's death in 599 Muhammad Ghuri should properly have styled himself Sultan-al-mu'azam indeference to his ultimate sovereign, the Sultan-al - 'azam. In fact, he appears to have done so quite consistently in his major gold and silver issues from Ghaznah from 590/1194 to 599/1202. But a rather confusing series of small, crudely-executed silver coins bearing dates and other indications of issuance between 569/1173 and at least 581/1185 defies that convention by naming Muhammad Ghuri (Muiz-ud-din Abul Muzaffar Muhammad ibn Sam) as Sultan al-'azam (sic) and referring to his brother (Ghiyas -ud-din Abu-l Fateh Muhammad ibn Sam) without any title at all! Since I have recorded at least five distinct varieties of this strange type, I feel sure it cannot be dismissed as a mere mint error or aberration. The only logical conclusion to be drawn from the evidence of this series is that it was issued by Muhammad Ghuri, only perfunctorily

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in the name of his brother, at a time when he (Muiz-ud-din) was feeling "puffed up" about having been named a Sultan and before he had sorted out his status vis-a-vis Ghiyas-ud-din.

A possible clue in that direction is the fact that the prolific coinage in gold and silver from the main mint at Ghaznah with "correct" titulature for the two brothers -- Sultan al-'azam for the senior and Sultan al-mu 'azam for the junior -- does not appear to have commenced until 590/1194, the earliest known date for those issues. It is no coincidence that these elaborate and large-scale bullion issues(13) began the year after Muhammad Ghuri's victory over Prithvi Raja Chohan on the field of Tarain, after which the spoils of the conquest of northern India presumably began to flow back to Ghaznah.

The aforementioned coins in the name of Muiz-ud-din as Sultan al-'azam without any such title for Ghiyas-ud-din raise the question of whether Muhammad Ghuri was, in fact, the humble, loyal and deferential servant of his elder brother which historians have depicted him to have been throughout their long royal relationship. I intend to address this question in future research.

Conclusion:

I am fully aware that true history far transcends a mere recitation of names, titles, dates, places and events, and that I have focussed essentiall on such elements in this paper. However, in the case of the Ghurids, as with some other phases of Medieval Indian history which are still rather sketchily known, it is necessary first to construct a reliable framework of such facts on which broader historical concepts and conclusions can the be arranged. This I am endeavoring to address with the help of numismatic research. After all, with history, as with man himself, it is necessary to learn to crawl before walking, and walk before running.

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Reference Notes:

(1) Maulana Minhaj-ud-din Juzjani. Tabaqat-i-Nasiri. Tr. by Major H G Raverty. 1881. pp. 111-114 and footnotes.

(2) Ibid., footnote 5, pp. 112-114.

(3) Ibid

(4) Stanley Lane-Poole. British Museum Catalogue of Oriental Coins, Vol. IX, No. 580 aa.

(5) Michael Mitchiner. Oriental Coins and Their Values: The World of Islam, 1978. Coin No. 804-5, p. 152.

(6) Minhaj, p. 335.

(7) Ibid., p. 115.

(8) Ibid., p. 368; and Raverty's footnote 3.

(9) Ibid., p. 357 and 369.

(10) Ibid., p. 370.

(11) Ibid., p. 377.

(12) M. Sourdel. Catalogue des monnaies dans la Musee de Caboul, Coin No. 1264.

(13) I regard these important issues tobe essentially bullion pieces because they do not follow any fixed weight standard, the silver dirhems varying generally between 3 and 6 grams and the gold dinars similarly.

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TREASURE TROVE FINDS OF VENETIAN COINS FROM PAVITHRAM VILLAGE IN TAMILNADU

N SANKARANARAYANA

A big hoard of coins was reported from Pavithram village, Namakkal Taluk of Salem District in the year 1973. The hoard was examined and the entire treasure trove was acquired for the Government Museum, Madras. The hoard contained coins of gold, silver and copper. The silver coins were Arcot rupees, copper coins were South Indian Panams and gold coins were Pagodas and Venetian. It consisted of about 3962 copper Panams, 129 Pagodas and 126 Venetian coins. Among the coins in the hoard, the Venetian coins were taken up for study and this paper is the result of that study.

The importance of this hoard is, that this is the first time, 126 Venetian coins were found in one hoard in Tamil Nadu. Another important fact in this hoard, is that it contained the coins of some doges which were not found earlier.

The gold coins of Venice, were originally known as 'Ducats' and later as 'sequins'. The name 'ducat' came according to Aravamudha presumably from the word ducatus found in the legend(1).

Venetian coins have on the obverse, the figure of St. Mark handing the gonfalon to the Doge. On the reverse is depicted the figure of Saviour, Obverse: St. Mark handing the gonfalon to the Doge. S M Venet (Sanctus Marcus Venetus, St. Mark of Venice), starting at top on the left, Fran Dona or any other name of the Doge, starting at top on right; Dux ('Duke') starting at top, in the middle; the letters in each section run downward, one below the other.

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Reverse: The Saviour, full length, with nimbur and surrounded by stars, enclosed by an oval of dots. SIT. T. XPE DAT. Q.TW REGIS ISTE. DVCA (SIT tibi Christie, datus, quem, tu, regis, iste ducatus 'Let this duchy which thou rulest be dedicated to thee, O Christ! (2)

The hoard from at Pavithram Village contained the coins of the following:

Pet Grimati	1741-1752 A.D
Aloy Mocen	1763-1769 A.D
Alvis Pisani	1735-1741 A.D
Franc. Lavred	1752-1762 A.D
Carol Ruzzini	1732-1735 A.D
Ioan Cornel	1709-1722 A.D
Antonio Trerisan	1545-1554 A.D

Prior to this hoard, Venetian coins were found in Tiruchirapalli District and Coimbatore District. The number of coins found was one or two coins. In a hoard found at Thathamangalam village, Lalgudi Taluk, Tirichirapalli District, alongwith the two Venetial coins, the coins of Hyder Ali, Tipu Sultan, Old Star Pagoda, Three Swamy Pagodas and New Star Pagoda were found in the hoard. Venetian coins were found in Kulathur, Karur, Musiri and Lalgudi taluks of Tiruchirapalli District. Two coins were found at Pollachi taluk of Coimbatore District.

The find of Venetian coins, if studied along with literary references, may throw some interesting light on the commercial contact between Tamil Nadu and Venice during that period. References to Venetian coins are found in the accounts left by the European travellers who visited India. Taverenier travelled extensively between 1640 and 1667 A.D found that among the gold coins which one carry to India, all the ducats of Germany ..... as also the ducats of Poland, Hungary, Sweden and Denmark'. According to him Venetian sequins occupied a wide of place. A chief of Bijapur is said to have worn a coat, which was of Venetian cloth of silk and silver(3). A Madras merchant imported bugles from Venice in 1743(4). When the Portugese under Vascoda-Gama

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reached Calicut in 1498, they found some Venetian and Genoeie ducats(5). The Portugese Commander Cabral found the gold coins of Venice at Calicut.

A brief account of the commercial contact between the Western countries and India would give an idea of the growth of trade relationship between the two regions.

The Roman coins were probably the first of the foreign coins to have become popular all over India. The flow of Roman coins, into India specially gold, according to Aravamuthan, which started about the middle of the First Century B.C. stopped practically about the six century A.D. For some centuries thereafter, not much information about the flow of European coins, especially gold, is available. Venetian gold coins were probably the earliest coins of Europe to come to India. Thereafter Venice attached much importance to trade. This is clear from the policy which she formulated, in the words, SIAMO VENEZIANI POI CHRISTIAN, 'WE are Venetians, then Christians'(6).

The flow of Venetian coins continued into Tamil Nadu till about the eighteenth century A.D., because in the present hoard and in another earlier hoard from Thathamangalam village Lalgudi Taluk of Tiruchirapalli District, Venetian coins were found along with Pagodas, Panams, and the coins of Hyder Ali and Tipu Sultan.

A thorough study of the available literary evidence on the trade contact between Venice and Tamil Nadu, and a correlation of this data with the treasure trove finds, may throw a flood of light on the trade during the medieval period.

Footnotes:

1. Aravamuthan T.G., A Catalogue of Venetian Coins in the Madras Govt. Museum, p. 6.
2. Ibid., p 52.
3. T.G. Aravamuthan, A Catalogue of Venetian Coins in the Madras Govt. Museum, p. 32.

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4. Ibid.
5. Ibid.
6. Ibid.

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THE GOLD AND SILVER COINAGE OF THE SIKHS

KEN WIGGINS AND STAN GORON

Introduction

It was just over 100 years ago that Charles Rodgers published his article "On the coins of the Sikhs" in the Journal of the Asiatic Society of Bengal(1). This was an informative but necessarily fairly brief article; it was somewhat lacking in detail and also not too well structured. Several important points appear to have escaped his notice and in spite of his long residence in the Punjab and his diligent search for coins, some types are not remarked upon. Despite these shortcomings, however, students and collectors of Indian coins have cause to be grateful to Rodgers for his initial study of the Sikh coinage and for laying down the path for further investigation. That further investigation was a long time coming. In the intervening years little if anything was written about the Sikh coinage - a notable exception being Valentine's treatment of the copper coinage in Part II of his "Copper Coins of India," published in 1914.

The present paper is a condensed version of four papers with the above title that the present authors have produced for the Oriental Numismatic Society over the last couple of years. These papers have sought to cover all the gold and silver Sikh coinage in published collections and private collections that the authors have had access to. Most of this material was located in England; some in North America and some here on the sub-continent. We are particularly grateful to the British Museum, and to the Punjab Museum, Lahore, who provided photographs of some unusual coins in the museum collection. Because of this geographical limitation the authors make no claim for their study being exhaustive; there are no doubt new coin types and mints still to be discovered, as well as unrecorded dates for various known types of coin.

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Historical Background

It is not possible in the context of this paper to give a detailed account of the rise of the Sikh power in north-west India. There are, of course, a number of excellent works dealing with the history of the Sikhs and much has been written upon specific episodes and notable personalities connected with their history. The following paragraph gives a broad outline of Sikh history and this is complemented by a listing of key dates and events at Appendix I.

The story of the Sikhs begins with the initiation by a religious leader in the late 15th century of a movement which emphasised conceptions common to the Hindu and Muslim religions and the preaching of the unity of these two faiths. The first of these religious leaders was the Guru Nanak, whose teachings spread slowly throughout Punjab. He was followed by other Gurus who, inspired by Nanak, compiled an anthology of sacred writings known as the Adi Granth or the sacred book of the Sikhs. What started as a purely religious movement gradually assumed a political tone, probably as the result of persecution by the Mughals, and culminated in a revolt in the Punjab inspired by the last Guru, Gobind Singh, and largely executed by his successor, Banda. Although this rebellion was supressed, the Sikhs were not crushed and sporadic risings against the Mughals continued. In the middle of the 18th century began a series of Afgan invasions of India and into the punjab. These were resisted by the Sikhs, who, in spite of them and intermittent Mughal oppression, became further unified and organised. With the final withdrawal of the Afghans from virtually all of the Punjab at the end of the 18th century and the serious decline of the Mughal government, the Sikhs were able to consolidate their territory and, after the capture of Lahore, to establish an independent state under the leadership of Ranjit Singh. There then began a period of expansion and unification of the Sikh state, which by 1834 attained its greatest extent. Ranjit Singh, the great leader of the Sikhs, died in 1839. Unfortunately, none of his successors were of his stature and the next six years were a period of anarchy and intrigue in the Punjab, during which the government fell into

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the hands of unscrupulous adventurers. Their warlike ambitions forced a clash with the British in 1845-46 and again in 1848-49, after which the Punjab was annexed and became part of British India.

General Comments on the Coinage

1. Legends:

Except for the coinage of Kashmir and with one or two other rare exceptions the Sikh coinage does not bear the name of any contemporary ruler. Instead the obverse of most of the gold and silver coinage refers to Nanak, the first Guru, and Govind Singh, the last Guru. The Kashmir coinage, in addition to this, bears a series of letters and/or part names that the authors believe represent the initials or names of the governors responsible for the striking of the coins in question. We have identified five versions of the Nanak - Govind Singh obverse. These are listed at Appendix II as types A-E and are referred to later in this paper under those headings. Because some coin types have been available only in fairly small quantities it has not been possible to reconstruct some legends with certainty. This is particularly the case with obverse types B and C. Translating the legends has proved even more difficult and we make no claims whatsoever to infallibility. A look at Appendix II will reveal that obverse type A was the most popular, perhaps because of its relative simplicity. Multan used the same obverse legends as Lahore, whilst Amritsar mainly used versions of its own.

The reverse of the coins usually comprises the name of the mint, the date in the Samvat era and the regnal year formula. This latter sometimes consists of the Mughal legend "jalus maimanat manus", sometimes a special Sikh formula, "takht akal bakht", or more often, parts of both. The legends are in Persian script, though some coins also bear one or more characters in Nagari or Gurmukhi. A few rare gold and silver coins struck at Amritsar and Kashmir are inscribed entirely in Gurmukhi; these coins are probably special presentation pieces. Worthy of special notice are two coins in the British Museum depicting the Guru Nanak seated receiving an offering

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of flowers from his disciple Mardana. These are treated below under Lahore.

2. Symbols:

Symbols of one type or other are frequently found in the Sikh coinage, especially that of Amritsar. In some cases they are clearly significant, in others probably merely ornamental or the mark of a particular die-cutter. The pipal leaf occurs on many coins; other symbols include daggers or spears, flowers, eyes, sun-faces, tridents. The authors are not expert in Sikh symbolism and have therefore refrained from commenting on this aspect of the coinage. It would, however, be a fertile field of research for those versed in its meaning.

3. Dates and other numbers:

Most types of Sikh coins bear a prominent date in the Samvat era. On a couple of specimens (see Anandgarh and miscellaneous type 5) part or the whole of a corresponding Hegira date can also be found. The later Amritsar and Lahore coinage is unusual in having a fixed date on the reverse (Samvat 1884 or 1885) and the actual date, or the last two digits thereof, in small figures on the obverse. Type 2 of Amritsar and coins of Anandgarh bear a series of regnal years which start in Samvat 1841. The significance of this is not known though Rodgers tentatively ascribes this to the Sikh ascendancy. Type 3 of Amritsar has been found with the additional numbers 315 or 316. This is mentioned below and is believed by the authors to refer to the birth of Guru Nanak. In some cases other numbers occur on the coinage but their significance is obscure.

4. Metrology:

Gold. The gold coinage is generally very scarce. Apart from the small gold rupees struck by Mulraj during the siege of Multan in Samvat 1905 (1848-49 AD) and a single mohur of Lahore, Sikh gold coinage is known only from Amritsar. The basic unit was presumably the mohur; double

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mohurs were also struck (there is a fine specimen in the British Museum) and the authors have recently come across a half mohur.

Silver. The basic unit was the rupee. Fractions of the rupee are all scarce and are known mostly from the latter coinage of Amritsar. One or two half rupees of Lahore and Multan are known.

The authors have not undertaken any analysis of the metal content of the coinage but it is clear that some of the series, in particular the silver coins of Kashmir and Derajat are very debased.

Sikh gold and silver coins are generally well struck pieces. The coins of Lahore, Multan and Amritsar bear witness to this. The coins of Kashmir are usually less well struck and often have flat areas. There is a curious characteristic shared by some coins of Amritsar (Type 2), the coins of Anandgarh and those struck by Ranjit Deo in Jammu in Samvat 1841, namely one side can be well struck while the other appears to have been struck from a very worn die. One Anandgarh specimen, to be illustrated later, shows an extreme form of this phenomenon.

Early Sikh Coinage

Until fairly recently the question of when and where the Sikhs issued their first coins was undecided. It now seems reasonably certain however that the first authentic Sikh coins were struck by Baba Banda Singh Bahadur (AD 1660-1716). This man, whose proper name was Lachman Das, was chosen as leader of the Sikhs by the tenth and last Guru, Gobind Singh. On his appointment in 1708 he raised rebellion in the Punjab and at the head of a Sikh army waged war against the Mughals. Such was his success that he was able to capture and sack Sarhind in 1710. Thereafter he carried on a guerilla war in the northern Punjab until defeated and captured in 1715. Banda was taken to Delhi where hewas executed in 1716. His initial successes against the Mughals and hisoccupation of some Punjab territory evidently gave him sufficient confidence to assume a

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royal title and strike coins in Gobind' s name. These coins appear to have been heard of by Irvine (2) but Rodgers doe-s not mention them in his paper. A specimen was first recognised and published by Panish(3).

Weight: 11.91 grams; Diameter: 23.3 mm.

Another rupee of this type has been published by John Deyell, to whom we are grateful for the following particulars:

Ob: Sikka zad bar do alam, Tegh-i-Nanak wahab ast, Fath Gobind Shah-i-Shahan, Faizal Sachha sahib ast (Coin struck in both worlds, the sword of Nanak is the giver, by the grace of the true Lord the victory is Gobind's, King of kings).

Rev: Zarb sanah 2, maswarat shahr, bi-aman al dhar, zinat al-takht, mubarak bakht Khalsa (Struck at the refuge of the world, the counmil city, the ornament of the throne of auspicious fortune of the Khalsa).

The precise place and time that these coins were struck is still open to doubt. The description given of the minting place does not specify any known town. Banda's headquarters was in a fort, called Lohgarh, near the village of Mukhlisgarh in the foothills of the Himalayas, so it is reasonable to assume, as did Panish, that they were struck there. The coins do not bear a Hegira or Samvat date but the regnal years two and three. The regnal years of Banda are assumed to have commenced on the 24th May, 1710 on his capture of Sarhind. Other writers mention the introduction of a new calendar by Banda, dating from the seizure of the city.

The next issue of coins by the Sikhs is said to have been made when Jassa Singh Ahluwalia entered Lahore in AD 1761 (S. 1818). The Sikhs were in occupation of Lahore for a few months only and then had to suffer the presence of the Afghans in the great fort, which they had been unable to take. If the Sikhs did strike coins during this brief period it would appear that none have ever come to light or have certainly not been

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recognised and reported, other than by Rodgers who had apparently heard of these coins from some earlier source and gives the inscription they bear as follows:

Transliteration and translation: Sikka zad dar Jahan bi faizal Akal, Mulk-i-Ahmad gerift Jassa kalal (Coin struck by the grace of God in the country of Ahmad conquered by Jassa, brewer).

As the power of the Mughals evaporated and the Afghans departed from the Punjab, the Sikhs were able to establish themselves in the cities, where they commenced striking coins. The earliest dated coinage of this period is that struck at Lahore in Samvat 1822 (AD 1765). The coinage continues for varying periods at various mints until Samvat 1905 (AD 1848) when the Sikhs were defeated by the British and their territory annexed.

The Mints

1. Amritsar:

Amritsar, the spiritual centre of the Sikhs, is said to have been founded during the time of the Guru Arjun (AD 1563-1606). The city was sacked on a number of occasions by the Afgans, who went to great lengths to destroy the Sikh temples and defile the sacred pool. As they made no attempt to permanently occupy Amritsar, the Sikhs were able to return and restore the damage. By AD 1767 the Sikhs were in a position to occupy Amritsar permanently without fear of Mughal or Afghan interference and the city came under the control of the Bhangi misl. It subsequently became an important commercial centre to which goods were brought from all parts of India and Central Asia. Prior to the take-over of the city in AD 1802 by Ranjit Singh, Amritsar was divided between about ten different families each owning different parts of the city with their own small forts and band of tax collectors, who levied dues on traders, shop-keepers and travellers as often as they were able.

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Silver Coinage.

Type 1. The first known coin of Amritsar is dated Samvat 1832. Other dates for this type are S. 1834-1838. It is possible that earlier coins exist.

Ar rupee. Weight:11.2 grams. Diameter: 22 mm.

Ob. B

Rev. Zarb Sri Ambratsar jiv/Sambat 1832/takht akal bakht jalus (Struck at illustrious Amritsar in Samvat 1832 by the grace of the throne of God?)

It is not certain whether the obverse legend is complete. The coin illustrated gives the greatest amount of the legend found so far on any coin of this type. This rupee was known as the Nanakshahi rupee. It is very scarce nowadays.

Type 2. Ar rupee. Weight: 10.5-11 grams. Diameter: 20 mm.

Ob. A

Rev. Zarb Sri Ambratsar, Sambat 1841, jalus maimanat manus, Akal ahad (Struck at illustrious Amritsar, Samvat 1841 in the year of the reign of tranquil prosperity, Akal one)

Known dates: S. 1841. S. 1842. S. 1846. S. 1852. S. 1854. S. 1859. S. 1864. S. 1865.

This type has already been commented on earlier. Coins dated S. 1841 have the year 1 at the bottom of the reverse; the coin of S. 1842 shown in the slide bears the word "thani" (=second) in the same place. Most coins of this type examined weigh less than 11 grams.

Type 3. Ar rupee. Average Weight: 11.2 grams. Diameter: 22 mm.

Ob. C

Rev. Zarb Sri Ambratsar jiv/jalus maimanat manus 1841/ takht akal bakht (Struck at illustrious Amritsar in the reign of tranquil prosperity 1841 by the grace of the throne of God)

Known dates: S. 1841. S. 1842. S. 1843. S. 1844. S. 1845.

The complete legends of this type have not been determined with accuracy. Some words are probably missing from both obverse and reverse. The meaning of the reverse legend is far from clear. Rodgers remarks in his paper " .... in these inscriptions there is more jingle than either good grammar or clear meaning". This type has, on the obverse, some figures.

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It looks as though there were at least two mints operating in the city from time to time. A comparison of the various coin types (see table overleaf) would indicate that rupees of type 2 were struck intermittently at one mint while rupees of types 3, 4 and 5 form a continuous series from what was presumably the main mint. Coins of type 2 are often poorly struck whereas the other types are usually well struck. It is not known who may have been responsible for the striking of type 2 but as previously mentioned their metallurgy bears some resemblance to the coins of Anandgarh and Ranjit Deo at Jammu. It is this type which bears the obscure regnal years series starting with year 1 in Samvat 1841.

Samvat Year	Type 2	Type 3	Type 4	Type 5	Type 5a (Mora)	Type 5b (Arisi)
1841	X	X				
1842	X	X				
1843		X				
1844		X				
1845		X	X			
1846	X		X	X		
1847			X			
1848				X		
1849				X		
1850				X		
1851				X		
1852	X			X		
1853				X		
1854	X			X		
1855				X		
1856				X		
1857				X	X	
1858				X		
1859	X			X	X	
1860				X	X	
1861			X	X	X	
1862			X	X	X	
1863			X			
1864	X		X			
1865	X					

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The coin dated S. 1841 has 3 1 5, those dated S. 1842 and 1842 have 3 1 6. These figures appear to represent the number of years that elapsed from the birth of Nanak to the year in which the coin was struck. The Guru Nanak was born in AD 1469 or S. 1526. Therefore 1526 plus 315 = S. 1841 and 1526 plus 316 = S. 1842. No other plausible explanation has been found for them.

Type 4. Ar Rupee Average weight: 10.8 grams. Diameter: 22 mm.

Ob. D.

Rev. The reverse legend is the same as Type 3 but with a pipal leaf which makes its first appearance on the Amritsar coinage.

Known dates: S. 1845. S. 1846. S. 1847

No fractional coins are known of the four previous types. We now come to the commonest of all the types of the Sikh silver coinage. This type, with its varieties was struck from S. 1846 to S. 1893. No coin of this type has been found for the year S. 1847 but it probably exists. Certain other years, notably S. 1870 and 1871 also seem to be very scarce. Half, quarter and eighth rupees were struck from around S. 1892 and all are scarce.

Type 5. Ar rupee. Average weight: 11.1 grams. Diameter: 22-23 mm.

Ob. D

Rev. As type 4, except for position of date.

A whole range of ornamental marks and symbols appear on coins of this type. As mentioned earlier, some of these marks are probably merely space fillers, others die-cutter or daroga marks, whilst others are deliberate representations of symbols pertinent to the Sikh religion. Though this coinage from year to year shows little significant difference there is some noticeable variation in the coinage of the year S. 1859 in relation to the depiction of th pipal leaf. This can be seen from the next slide.

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It is not known whether this variation has any particular significance.

From S. 1846 to S. 1884 the coins bear the correct Samvat date. Thereafter the date S. 1884 (AD 1827) becomes a permanent feature and the actual Samvat date is shown on the obverse by its last two digits only. The reason for this system of dating has not been discovered. Rodgers gives an explanation which was related to him but which seems hardly credible ..... "There is a class of faqirs who say that, in as much as the number of breaths a man will take is numbered when he is born, the more slowly people breathe the longer they will live. I suppose the idea may have got into Ranjit Singh's mind (he was the slave of all kinds of superstitions as well as lusts), that if he could manage to drag out one year to the extent of ten, his life would be all the longer, the number of years being originally fixed". Although the practice of breathing slowly may meet with the approval of medical practitioners and may prolong life, just how this theory relates to the dual dating system on Sikh coins is difficult to understand. A possible explanation is that the Sikh coinage, in common with other Indian coinages, suffered from the imposition of a system of batta, imposed by the bankers and money-changers, whereby after a fixed period a coin would suffer depreciation depending on its date. The East India Company met the same problem in the late 18th century and adopted a fixed date on their coinage in order to defeat it. The Sikhs may have retained the fixed date for the same purpose but the placing of the actual date in a shortened form in tiny figures on the other side of the coin would tend to defeat the objective. Another aspect that complicates the picture is, as is shown below, the existence of a parallel series of coins bearing the fixed date of S. 1885 with actual dates going up to S. 1905. There is a good deal of overlap between these two series. The reason for their dual existence is one of the puzzles of the Sikh series. A later rupee of Type 5, showing the fixed date of S. 1884 and the actual date of S. (18)93 on the obverse.

Before continuing with the main series of the Amritsar coinage it is appropriate to note two major varieties of Type 5. These are the

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Mora and Arisi rupees.

Type 5a. Ar rupee. Weight 11.1 grams. Diameter: 21.5 mm.

Legends as Type 5

Known dates: S. 1858. S. 1860. S. 1861. S. 1862. S. 1863

This type carries the same inscriptions as Type 5 but in place of the pipal leaf has a double branch or spray which is said to be a peacock's tail. This device was allegedly ordered to be put on the coins by Ranjit Singh at the instance of a Kashmiri girl with whom he had an affair. The girl's name was Mora and according to Cunningham (11) Ranjit Singh caused coins or medals to be struck bearing her name. No coins with her name have ever been found, so the reference is probably an allusion to this particular mark. The name Mora means peacock in Hindustani. This type was issued over a period of five years and probably covers the period of Ranjit Singh's attachment to this young lady. According to Rodgers these coins were known as Morashahi. The rupees most commonly met with are dated S. 1862, others are rare. No fractional pieces have been encountered. There are a number of die varieties in this type, principally in the formation of the spray or peacock's tail.

Type 5b Ar rupee. Weight 11.1 grams. Diameter: 22 mm.

Legends as Type 5

Known dates: S. 1862. S. 1863

This type also bears the same inscriptions as Types 5 and 5a but in place of the pipal leaf or peacock's tail has an arisi (a thumb mirror commonly used by dancing girls in India). These rupees were called arisiwalla sikka. In other details it is identical the other Amritsar coins of the period apart from the omission of the alif from the word akal, a feature which has also been noticed in Type 5.

Type 6 Ar rupee. Weight 11.1 grams. Diameter: 21.5 mm.

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Ob. A

Rev. As Type 5.

The obverse legend of this type differs from Type 5. The last known date for Type 5 is S. 1884/93 and no specimen dated S. 1884/94 of this type has been traced. Type 6 commences with the date S. 1884/95 and as it was produced contemporaneously with Type 7 it was evi-dently considered necessary to change the legend. A rupee with the date S. 1884/1902 probably exists but has not been found. The known dates run to S. 1884/1904.

Type 7. Ar rupee Weight: 11.15 grams. Diameter: 23 mm

Ob. D

Rev. As Type 5.

This type is merely a continuation of Type 5 but with the fixed date of S. 1885 on the reverse and the true date in minute figures on the obverse. This type appears to have first been produced in S. 1893 (AD 1836) and continues, as does Type 6, until the final year of the Sikh state. Half, quarter and eighth rupees are known with various dates. These appear to have been struck from rupee dies with the result that much of the legend is off the flan. This type is characterised by an increased number of clearly significant symbols. (A selection of these can be seen on this slide).

We finish the Amritsar rupee coinage with two unusual coins. One bears the full dates S. 1888 and 1904 and the other the full date S. 1889. Only one specimen of each is known and both coins are in an excellent state of preservation. They are possibly patterns of trial pieces.

Ar rupee Weight: 11.2 grams. Diameter: 23 mm

Ob. A.

Rev. As type 6.

Ar rupee. Weight 11.4 grams. Diamater: 23 mm

Ob. D

Rev. As type 6.

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Gold Coinage.

The authors have come across little more than a handful of the gold coinage. All types are therefore scarce to very rare. The earliest dated coin is a mohur of S. 1858 similar to rupee Type 5. A similar coin dated S. 1861 has also been noted. The Mora coinage is represented by a mohur dated S. 1862 and the Arisi coinage by mohurs dated S. 1862 and 1863. In year S. 1868 a mohur of the basic Type 5 was struck with the pipal leaf replaced by the Persian letter ب . A few double mohurs must also have been struck. The one in the British Museum is dated S.1884/85. A single ½ mohur has been reported. (Some of this coinage is shown on the next slide).

A couple of coins are also known inscribed in Gurmukhi. One weighing 9½ grams is similar to the common copper coins struck at the Amritsar mint, and the other, of heavier weight, is similar to the Kashmir Gurmukhi coin mentioned below.

Lahore

The Sikhs took Lahore in AD 1765(S. 1822) from the Durrani governor Kabula Mal. The Bhangi misl held the city for the Sikhs until the Durrani Shah Zaman invaded the Punjab in 1795-96 and appeared before Lahore in 1797. He endeavoured to conciliate the Sikhs but was forced to return home. He renewed his invasion the following year and entered Lahore without opposition. He was soon recalled to Afghanistan and in AD 1799 appears to have arranged the cession of Lahore to the Sikhs by an arrangement made with Ranjit Singh, who dispossessed the Bhangi chiefs and made himself master of Lahore. From this date Lahore was the political capital of the Sikh realm until its occupation and annexation by the British in 1849.

Sikh rupees were struck at Lahore from S. 1822 to S. 1903, probably continuously though a few years remain unrecorded. It is possible that rupees were also struck in S. 1904 and S. 1905. This coinage is much

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scarcer than that of Amritsar. In addition to the rupees, three half rupees and a single mohur have been recorded.

Type 1 Ar rupee. Weight: 11.2 grams. Diameter: 20-21 mm.
Ar ½ rupee. Weight: 5.5 grams. Diameter: 19 mm

Ob. A.
Rev. Zarb Dar al Sultanat Lahore, Sambat ... jalus maimanat manus (Struck at the Seat of the Sultanate, Lahore in Samvat ..... the year of prosperous accession)

Known dates: S. 1822 - 1836. S. 1840. Rupees
S. 1828. S. 1832.. ½ rupees.

On accupying Lahore in AD 1765 the Sikhs lost no time in striking their own money for their first rupee from this mint is dated S. 1822. The Durranis struck coin in Lahore upto AH 1180 which commenced in June, 1766. The reason for this inconsistency cannot be readily explained. The reverse of this type is similar to the preceding Mughal and Durrani coinage except that the date is in the Samvat era. It should be noted that the Mughal mint epithet of 'Dar al Sultanat' was retained. The obverse legend, however, is entirely Sikh and, as with the Amritsar coinage, pays homage to Guru Nanak and Guru Govind Singh.

Type 2. Ar rupee. Weight: 10.7 - 11.3 grams. Diameter: 21-24 mm.

Ob. E.
Rev. As type 1

Known dates: Rupees: S. 1841-1846. S. 1849-50. S. 1852-55

The second type of rupee struck at Lahore emerged in S. 1841 (AD 1784). The obverse legend is entirely different but that on the reverse remains the same. This type was continued until S. 1855 (AD 1798) and the tem-

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porary occupation of Lahore by the Durrani Shah Zaman early in AD 1797 and again in November, AD 1798 does not appear to have interupted the minting of the Sikh coins. Shah Zaman struck coins in Lahore in AH 1211 (AD 1797, S. 1854) and again in AH 1213 (AD 1798, S. 1855)

Type 3. Ar rupee. Weight: 11-11.15 grams. Diameter: 21-24 mm
Ar ½ rupee. Weight: 5.6 grams. Diameter: 20 mm

Ob. E (As Type 2)
Rev. As Type 2.

Known dates: Rupees: S. 1856 - 1884 (except S. 1876)
½ rupees: S. 1864

This type commences in AD 1799 the year that Ranjit Singh took possession of Lahore. Both obverse and reverse legends are as Type 2 but there is the addition of a pipal leaf on the reverse to the left of the date. As this symbol appears at an important date in Sikh history it would seem probable that the leaf was an emblem adopted by Ranjit Singh, but no record of this fact has been found. A few other symbols are found on this coinage but they are probably mint marks.

Type 3a. Au mohur. Weight: 10.85 grams. Diameter: 20 mm
Ar rupee. Weight: 11-11.1 grams Diameter: 22-24 mm

Ob. E (As Type 2)
Rev. As Type 2.

Known dates: Mohur: S. 1884/88
Rupees: S. 1884/87. S. 1884/88. S. 1884/89. S/1884/90
S. 1884/91. S. 1884/92. S 1885/95. S/ 1885/96
S. 1885/1902. S. 1885/1903.

This type is identical to Type 3 but is characterised by the dual dating system, to which reference has already been made in the notes relating

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to the coins of the Amritsar mint. There may be said to be two varieties of this type (a) with the fixed date of S. 1884 on the reverse and the last two figures of the true date on the obverse and(b) with the fixed date of S. 1885, otherwise the same.

Miscellaneous Types.

1. Ar rupee. Weight: 11.2 grams. Diameter: 23 mm
Date: S. 1885/93

Ob. The Guru Nanak seated receiving an offering fof flowers from his disciple Mardana. Pennant in background below.

Rev. Same legend as Ob. A.

2. Ar rupee. Weight: 11.4 grams. Diameter: 26 mm.
Date: S. 1885

Ob. As No. 1 but spray of flowers between figures and no date.

Rev. As No. 1 but with date(1885)

There has been some speculation as to whether these pieces are coins or religious medals. There is no information from any literary source but judging from the weight and size it is possible they were intended as presentation rupees on some particular occasion.

No. 1 is dated S. 1885 on the obverse and S(18) 93 on the reverse. The true date corresponds to AD 1836-37. An opinion has been expressed that this piece, and possibly No. 2 also, were struck as presentation coins at the marriage of Nau Nihal Singh, the favourite grandson of Ranjit Singh. The marriage ceremony was performed at Attari (between Amritsar and Lahore) on the 8th March, 1837. This date just falls within the Samvat year 1893. It is said that on this occasion one rupee was given as nazr to every inhabitant of the town of Attari. Whether it was the

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piece described above is a matter of conjecture. No. 2 is dated S. 1885 only. There is no trace of a secondary date. The similarity between the coins is so obvious however, that both were probably produced for the same occasion. Both specimens were in the British Museum collection.

Multan

The Sikhs under Jhanda Singh captured Multan from the Durranis in AD 1772 (S. 1829). The Durranis made two vain attempts to recapture the city before being successful in AD 1779 (S. 1836). Multan then remained in Durrani hands for some 39 years despite a number of attempts by Ranjit Singh to oust them. His persistence, however, paid off and in 1818 a Sikh band under Sadhu Singh made an entry by a surprise attack and made the capture of the citadel possible. The city thereafter remained in Sikh hands until captured by the British in AD 1849.

The Sikh coins of Multan are fairly scarce and consist almost exclusively of rupees. One half rupee is recorded but no gold, except for the small gold rupees issued during the seige of Multan in S. 1905 (AD 1848-49).

Rupees are known for every year the city was in Sikh hands. The first issue is very similar to the contemporaneous Lahore issue. The second issue also followed the later Lahore pattern. Coins of this later period start off being well struck but the legends degenerate over the years, so that after a while only a small part of the inscription appears on the coins. The date, however, remains prominent. A number of symbols appear on the later coinage, the most notable of which is the tulip flower which was used as a mintmark of the city during Mughal times.

Type 1. Ar rupee. Weight: 11 grams. Diameter: 20 mm

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Ob. A.

Rev. Zarb Dar al Aman Multan, Sambat 1829, jalus maimanat manus (Struck at the Seat of Safety Multan, in Sambat 1829, the year of prosperous accession)

Known dates: S. 1829-1836

Type 2. Ar rupee. WeightL 11.1 grams. Diameter: 22-24 mm.

Ob. E

Rev. As Type 1.

Known dates: S 1875-1905

At the conclusion of the first Sikh war in 1846, the administration of Multan was given to Diwan Mulraj, who combined his gubnatorial duties with the business of trade on a large scale. He was ultimately called upon by the Resident to render accounts. After some delay he intimated that he preferred to resign. Two British officers were sent to Multan to take over the fortress and to install the new Sikh governor appointed to succeed Mulraj. In April, 1848 both these officers were attacked and murdered, probably at the instigation of Mulraj who rewarded the murderers for their deed. Mulraj promptly regained Multan with its fortress and in effect raised a rebellion against the Punjab administration. Steps were taken later in the year, during the cold season, to retake Multan. The city was invested in September, 1848 and after a gallant defence, capitulated in January, 1849. It was during the period of this siege that the following small gold coins were struck.

Type 3. Au rupee. Weight: .65 gram. Diameter: 11 mm.

Ob. Sahaya Satguru (The true teacher may help)

Rev. 1905 Mundarka

These small gold coins do not bear a mint name but have always been attributed to Multan presumably on the basis of hearsay carried down from the mid-19th century. Fairly recently some documentary evidence

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came to light which tends to confirm this attribution. In a note of 1864, the Commissioner at Amritsar, writing in respect of a proposed gold coinage for India mentioned "When Mulraj was besieged in Multan, being short of silver to pay his troops but having 40 lakhs of rupees hoarded in gold, he coined the whole of it into pieces which passed for one rupee." The date on these coins is further confirmation. The siege of Multan lasted from September, 1848 until 22nd January, 1849; this period falling in the Samvat year 1905. The obverse legend has been read as above and could be taken as a supplication to the Guru Nanak for help for the besieged Sikhs. The meaning of the word "mundarka, if that is the correct reading, has not been ascertained.

Kashmir

The Sikhs captured Kashmir from the Durranis in July, AD 1819 and held it until AD 1846, when at the conclusion of the first Sikh War Kashmir was ceded to Gulab Singh, Raja of Jammu, by the British. During the twenty seven years of Sikh rule, the country was administered by no fewer than ten governors. These are listed at Appendix 3.

The Sikhs lost no time in issuing their own coins. The earliest ones are dated S. 1876 (AD 1819) and there is a complete date run to S. 1903 (AD 1846). There is considerable variation in this coinage and we have identified over 30 different types. Because of space considerations only a representative sample will be considered in this paper.

Throughout the series obverse type A (see appendix 2) is used but with a number of additional letters and marks which are commented on later. The reverse legend, on the other hand, varies from time to time and so far it has not been possible to decipher all the legends completely. The mint is always called Kashmir (not Srinagar), sometimes prefixed by the word khittah (=district), sometimes on its own.

The silver coinage seems to have comprised rupees only, as no

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fractions have yet been reported; Nor indeed has any gold coinage of the period. The weight of the rupee during this period remained reasonably constant but its silver content is reported as having fluctuated from time to time on the order of different governors. Certainly some of the later Kashmir rupees have a very debased appearance.

It has been mentioned above that the obverses of the Kashmir coinage bear a number of additional marks and letters. A close study of these and the dates of the various types of coin have lead the authors to the belief that most, if not all, of these additional symbols can be associated with specific governors. This is elaborated upon below.

Before dealing with the obverses, the illustrations below give a good idea of the variation in reverse designs and legends during the first part of the Sikh rule:

a) Struck in the district of Kashmir, Samvat 1876
b) Struck in the district of Kashmir, Samvat 1877, in the year of his auspicious reign. (Note the large pipal leaf)
c) Legend as for b. (Note that the pipal leaf has a 'leaf spray'at the end)
d) Legend as for b. (Note the dagger crossing the stem of the leaf)
e) Struck in the district of Kashmir with the help of God in Samvat 1881. (Note inclusion of the phrase Akal sahai)
f) Struck in the district of Kashmir with the help of God in Samvat 1884.
g) (Struck in) honourable Kashmir in 1885 the year of his auspicious reign, by the grace of the throne of God. (Note the use of Shri and the 'Bakht Akal Takht' formula)

Obverse legends:

a) The flower-spray occurs on coins of S. 1876 and 1877. The reverses vary however and thus coins can be attributed to both Misr Diwan

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Chand, the first governor and Diwan Moti Ram, the second Governor.

b) These coins have the legend 'Hara' in Gurmukhi (II) and Nagari(III).

& Coins with the legend 'Haraji' in Nagari are also known. These

c) types bear the dates S. 1878 and 1879 and are attributed to the governorship of Sardar Hari Singh.

d) This type bears the Nagari legend 'Um Sri' and is found on coins dated S. 1879. This is probably the first issue of the next Governor, Moti Ram, who wasin fact a Hindu.

e) This is the obverse of coin d) above. We have only come across a single specimen of this type. It is distinctive in both obverse and reverse. The obverse seems to include the legend 'Sri Ram' written. The coin is dated S. 1880 and is attributed to Moti Ram.

f) Coins with the flag symbol are known dated S. 1881, 1882 and 1883. This corresponds to the period when Chuni Lal was governor.

g) The legend includes the letter ک (=k). Coins with this obverse are known dated S. 1883 to 1887. One coin without a date has the legend کرام (K Ram). These coins are attributed to Kirpa Ram. The reverse types of this period vary considerably.

Ar rupee — Obverse

Reverse: Struck in Kashmir in 1888 the year of his auspicious reign by the grace of the throne of God.

This type known only from S. 1888, has a Persian 'B' on the obverse and a Gurmukhi 'B' or 'Bh' on the reverse. It is attributed to the governor Bhima Singh. There is a variety of this type which lacks the Gurmukhi letter.

Ar rupee — Obverse

Reverse

Coins of this type are known from years S. 1893-1898 and are attributed to Mehan Singh. The reverse inscription is as yet undeciphered. Sri Akal and Kashmir are clear. The top line seems to be a ک (k) and only

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appears on some coins with this type of reverse. The next two lines may represent the word Haraji written in Persian, but this is very conjectural. There is another word as yet unread to the left of Akal.

Ar rupee Obverse : with ش

Reverse: As previous type but without گ

Coins with the letter ش (s) are dated S. 1898-1903 and thus can be attributed to the two governors, Shaikh Gholam Muhyid Din and Shaikh Imam ud Din. The coins illustrated were struck during the governorship of the former.

We cannot leave Kashmir without considering the rare silver coin inscribed entirely in Gurmukhi.

Ar. Date: S. 1892 Weight: 7.6 grams. Diameter: 21 mm

Obverse:

Reverse: Jarb i Kasamira i
Sri Akal Purukhji - 1892-97

This type was struck during the governorship of Mehan Singh and bears the sword and belt symbol that occurs on his other coinage. The expression Sri Akal Purukhji on the reverse is, according to Rodgers, the commencement of the Akal Astut, a hymn in praise of the Timeless One. The words are said to mean "Hail, Timeless Divinity". As far as we can tell the obverse legend represents the usual type in use on the Kashmir coinage. The light weight of this coin and the reference to the Akal Astut hymn suggests that this coin was struck for a religious or presentational purpose rather than for circulation. It will be noticed that in addition to the Samvat date the coin also bears the number 97. It is not known what this refers to.

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Anandgarh

Anandgarh was the fort situated in the town of Anandpur in the Hoshiapur district of the Punjab. The town is said to have been founded by the ninth Guru, Tegh Bahadur (AD 1664-75). It later became the stronghold of the last Guru, Govind Singh. Subsequently, Anandpur became the headquarters of a branch of the Sodhis (descendents of Ram Das, the fourth Guru) and the centre of the Nihang sect of Sikhs. In the 19th century the town was the location for a great annual religious fair.

Coins were struck at Anandgarh for a decade at the end of the 18th century, with known dates running from S. 1840 to 1849. So far, coins dated S. 1847 and 1848 have not been recorded but they probably exist. No gold or fractions have been reported.

Ar. rupee. Weight: 10.5-11.1 grams. Diameter: 22 mm.

Ob. A.

Rev. Zarb Anandgarh, samvat .....
jalus mainmanat manus (Struck at
Anandgarh in Samvat .....
the year of prosperous accession).

Coins of Anandgarh are very scarce. They are usually quite well struck but one coin has been noted where the reverse has been struck from an extremely worn die. The Anandgarh coins have several things in common with Amritsar Type 2 (see above). This latter type was also struck from worn dies; both types depict an era that has its first year in S. 1841; the general style and symbolism is very similar and both use obverse type A. It is quite conceivable they were struck by the same authority. One coin dated S. 1842 has a partial Hegira date (121x) above the top line of the reverse.

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Peshawar

The Sikhs captured Peshawar in AD 1818 and AD 1823 but in each case were only able to hold on to the city for a short while before it was recaptured by the Durranis. The Sikhs had to wait another ten years before being able to undertake the successful annexation of this city, which they then proceeded to hold until 1849.

A short series of rupees is known dated S. 1891-1894 (AD 1834-1837). This period coincides with the governorship of Hari Singh Nalwa, of whom it is said that he struck his own coins in Peshawar with the approval of Ranjit Singh. The coins are well designed and struck but are generally of low weight, around 8½ grams. Heavier coins weighing 10½-11 grams are known dated S. 1894. These are however much rarer than the light-weight coins, which themselves are quite scarce.

Ar rupee. Weight: 8.47-8.55 grams. Diameter: 23-24 mm.
10.42-11.01 grams.

Ob: A.

Rev: Zarb Peshawar, sanah jalus (date)
(Struck in Peshawar in the year of accession)

Derajat

The Derajat is the alluvial plain between the Sulaiman Range and the Indus River. It takes its name from the three Deras or settlements of Dera Ghazi Khan, Dera Ismail Khan and Dera Fath Khan. The mint name Derajat, however, relates to coins struck in Dera Ismail Khan. This was a predominantly Durrani mint. In AD 1820 Ranjit Singh took the fortress of Mankera and had the whole area, including Dera Ismail Khan, under his control. He was however content to let the previous governor, the Sadozai Afghan Sher Muhammad, to continue his rule subject to the payment of tribute. In AD 1835-36 the Sikhs formally annexed the Derajat. Initial Sikh control made no difference to the coinage of the area. Sher Muhammad continued to strike coins in the name of the Durrani, Mahmud Shah. These

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coins are known dated upto AH 1251, several years after Mahmud's death. The formal annexation by the Sikhs in AD 1835-36 resulted in the issue of a distinct Sikh coinage. This coinage is scarce and is known dated S 1892-1902.

Ar rupee. Weight: 10.8 - 10.9 grams. Diameter: 17-18 mm.

Ob: Such a small part of the whole legend appears on these coins that it is impossible to say with certainty what it is.

Rev: Zarb Derajat (date) = Struck at Derajat.

These coins are crudely struck on small, thick flans. As a result only part of the obverse legend has been determined. There is what appears to be a Gurmukhi character or phrase below the date. This character or phrase becomes more crudely inscribed as the series progresses and we have been unable to decipher it. No gold coins or fractions have been recorded.

Dera

The mint name of Dera represents the town of Dera Ghazi Khan. As previously mentioned, the Sikhs gained control of the Derajat in AD 1820. The southern part, including Dera Ghazi Khan, was held as a fief by the Nawab of Bahawalpur. By 1830 however, the Nawab had been expelled by the Sikhs who installed Sawan Mal of Multan as governor.

Dera is known predominantly as a Durrani mint. Sikh coins from this mint are extremely rare. Rodgers listed one in the Catalogue of the coins in the Government Museum, Lahore (Calcutta, 1891). The authors have obtained a rubbing of this coin from the Lahore Museum and this rubbing is reproduced below.

Ar rupee. Weight: 11.02 grams. Diameter: 22.85 mm.

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ob: Uncertain, possibly a version of Type D.

Rev: Zarb Dera takht Akal bakht, jalus maimanat manus
(Struck at Dera in the reign of tranquil prosperity
1884, by the grace of the throne of God)

Rodgers mentions that the obverse of the coin included the date S. 1904 and the word Ram in Nagari. There are signs of this in the above rubbing. Elsewhere, Rodgers mentions a similar coin which he attributes, on hearsay, to the town of Leiah. This coin is also in the Lahore Museum and the authors have received a photograph of it (see appendix 4). Whilst it is not the same coin as the one above, it is clearly the same type. The date 1904 is visible, though the 1 is not very evident, as is what appears to be the crude Nagari inscription. No other Sikh rupees from this mint have been reported.

Nimak (Pind Dadan Khan)

Some Sikh rupees allegedly bear the word Nimak as the name of the minting place. No such place will be found in the Punjab. In Persian and Urdu the word nimak means salt. The name is said to have been put on rupees struck at Pind Dadan Khan, a town on the right bank of the Jhelum river which was noted as the main emporium for salt, mined in the hills behind the town.

Type 1. Ar rupee. Weight: 11.14 grams. Diameter 23.5 mm

Ob: Complete reading not obtained, probably Obverse D.

Rev: Incomplete but possibly - Nimak sahi, jalus maimanat manus, takht Akal bakht.

Known dates: S. 1904. S. 1905

Type 2. Ar rupee. Weight: 11.1 grams. Diameter: 23 mm.

Ob: As type 1 but in centre

Rev: As type 1

Known dates: S. 1905

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The attribution of these rupees to Pind Dadan Khan rests entirely with Rodgers who presumably must have been in possession of some information regarding them. It is unfortunate that none of the few specimens examined show clearly the commencement of the word in the top line of the reverse. This word (Nimak?) is followed by another which is possibly sahi. The complete line would thus read "Nimak sahi" meaning salt money. What is clear is that the line across the top third of the reverse is not the elongated of "Zarb" so there is not on these coins an accepted mint name preceded by the word "zarb". No information concerning the issue of these coins has been discovered and the question of why they were struck for a very limited period at Pind Dadan Khan is a matter of conjecture. It is possible that they were issued locally in some connection with the salt trade. The rupees are quite rare and no fractional denominations have come to light.

Muzang Acchra

Muzang, at one one time, was a village just outside the city of Lahore. It is now the name of the inner suburb. Acchra was a zila of the Lahore tahsil. The name Muzang Acchra indicates that the village of Muzang was in the Acchra district.

The coin described below is another of Rodgers's discoveries and as far as is known is unique.

Ar rupee. Weight: 11.18 grams. Diameter 24.1 mm.

Ob: Complete reading not obtained but probably obverse type E.

Rev: Zarb Muzang Acchra, Sambat 1889, jalus Maimanat manus (Struck at Muzang Acchra in Samvat 1889, the year of prosperous accession)

Only known date: S. 1889

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The attribution to a mint at Muzang Acchra is Rodgers'. The coin is in the Lahore Museum, who have kindly provided us with a photograph. As can be seen much of the mint name is on the coin and Rodgers' attribution may well be correct. The coin certainly looks like a cruder variety of the Lahore coinage, though the latter mint at this time was using the dual dating system, i.e. S. 1884/89.

Miscellaneous Types

1. Ar rupee. Weight: 11.5 grams. Diameter: 23 mm

Ob; Probably a version of Type A.
Rev:Akal Sahaiya (in Gurmukhi)
Sarkar Alhuwalian 1862 = By the grace of God, government of Alhuwalia, 1862.

The reverse of this coin indicates that the coin was struck by or for Fateh Singh Alhuwalia. This young man was a descendent of Jassa Singh Alhuwalia and the head of the Alhuwalia misl. He was held in high esteem by the Sikhs. Ranjit Singh, after becoming Maharajah of the Punjab, thought it prudent to have the support of Fateh Singh as an ally and friend. In 1802, on the way back to Lahore, Ranjit Singh stopped at Amritsar and in a formal ceremony exchanged turbans with Fateh Singh as a symbolic gesture of having become brothers in the faith. Both then signed a solemn pledge that thereafter their friends and enemies would be common to them and in every conquest made by their joint efforts Ranjit Singh would give one district to Fateh Singh. Thereafter, Fateh Singh was received in full durbar as a royal prince and became a trusted colleague of Ranjit Singh; advising him on military matters. Fateh Singh, was with Ranjit Singh, a signatory to the Treaty of Lahore made with the British on the 1st January, 1806, which falls in the Samvat year of 1862. The coin is therefore possibly a nazr struck on that event. The place of minting is unknown.

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2. Ar rupee. Weight: 11.15 grams. Diameter: 22 mm
Known dates: S. 1838, S. 1839.

Ob: Probably a variant of type D.
Rev: Zarb ..... sanah 1838 sambat bakht akal takht, jalus = (Struck at ..... in year samvat 1838, by the grace of the throne of God.)

This coin is in the British Museum where it is attributed to Amritsar. It is evidently a rare type as the only other known example is one recorded by Rodgers dated S. 1839. The mint name is not clear on the British Museum coin so the attribution to Amritsar must be tentative. The obverse legend is not complete but appears to be a form of type D.

3. These rupees dated S. 1879 and 1880 are said by Rodgers to have been struck at Mukerian, a village in the Hoshiapur district of the Punjab. There is no evidence for this attribution. Rodgers may have read incorrectly the top line of the reverse as the mint name. It does in fact say Sri Akali. The mint seems to be at the bottom of the reverse (see coin a). This line has not been read but it bears little resemblance to Mukerian.

4. Two coins, dated S. 1873 and 1874 have been attributed to Jhang, a town situated near the junction of the Jhelum and Chanb rivers. One of these coins is listed by Rodgers in his catalogue and is now in the Lahore Museum. Of this coin Rodgers says, "in the lam of Akal (on the reverse) is Dar Jhang? This was sold to me as a Jhang Rupee. It has شري on it as on Amritsar coins." Clearly Rodgers was doubtful about the attribution and from the photograph (see appendix 4), obtained from the Lahore Museum, it will be seen that Rodgers' doubt is well founded.

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5. Ar rupee. Weight: 10.7 grams Diameter: 20 mm

Ob: Incomplete by probably type A with Hegira date 1217

Rev: Incomplete Zarb .....sambat 1860, jalus maimanat manus = (Struck at ..... in Samvat 1860 the year of auspicious accession).

Unfortunately, the greater part of the mint name is off the flan of this coin and what remains does not enable an accurate judgement to be made as to what it might be. There are a few interesting features on this coin. On the obverse is clearly the Hegira date of 1217 which corresponds accurately with the Samvat date of 1860. On the reverse side is a rather decorative type of pipal leaf and a katar. It would appear that the words "takht Akal bakht" are not present on this coin as they are on the contemporary issue from the Amritsar mint, which also carries a different obverse legend. Until further specimens appear, this type cannot be attributed to any particular mint.

Conclusion

As we mentioned at the beginning of this paper, the survey we have just given of the gold and silver coinage of the Sikhs is by no means complete. Firstly, because it has not been possible to compress all the information known to us into the available space and secondly, because there is undoubtedly material, perhaps a good deal of material, that we have simply not come across. We hope however, that what we have been able to say has been of interest and will encourage others to pursue the study of this series. There is still much to do. One important area of study is that of the symbols on the coins and the various dates and figures to be answered, for example: Why is there so little gold coinage? Were there indeed two or more mints in Amritsar? What, if any, is the connection between Amritsar, type 2, and theAnandgarh coinage? What is the significance of the dual dated series of Amritsar? Why were a few coins struck at odd mints? It is doubtful whether the authors will find the answers to these

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Questions in Great Britain. It would surely be appropriate if the challenge were taken up by numismatists in India.

Appendix 1

History of the Sikhs, Key dates and events:

A.D	
1469-1539	The first Guru Nanak. Founder of the Sikh religion. Came to prominence as a religious leader about 1500.
1504-1552	The second Guru, Angad.
1479-1574	The third Guru, Amar Das.
1534-1581	The fourth Guru, Ram Das.
1577	Foundation of Amritsar.
1563-1606	The fifth Guru, Arjun. Built the Harimandir temple in Amritsar and established the town as a centre of Sikh worship.
1595-1644	The sixth Guru, Hargobind. Built the Lohgarh fort in Amritsar and established a Sikh armed force.
1627	Sikhs harassed by the Mughals.
1630-1661	The seventh Guru, Har Rai.
1656-1664	The eighth Guru, Hari Krishen.
1621-1675	The ninth Guru, Tegh Bahadur. Executed by order of Aurangzeb.
1666-1708	The tenth and last Guru, Gobind Singh. Did much to establish the Sikhs as a religious warrior sect. Instituted the Sikh baptism and created theSikh brotherhood called the Khalsa. Fought against the Mughals who saw a threat in the rise of Sikhism.
1660-1716	Banda Singh Bahadur assumed military leadership of the Sikhs on the death of Gobind Singh. Raised rebellion againat the Mughals in the Punjab.
1709	Takes and sacks Samara. Ravages parts of the Punjab.
1710	Banda takes Sarhind. Liberates the Jullunder Doab.
1711	Mughal rule re established in the Punjab

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1715 Banda captured after several years of guerilla war against the Mughals. Executed in Delhi.

1716-1738 Intermittent Mughal campaigns against the Sikhs in order to crush them. Some unification of the Sikhs under Kapur Singh, who organised them into twelve misls, each with its own leader. They consolidate their hold around Amritsar when the Mughal governor of the Punjab offers a jagir on payment of tribute as reconciliation.

1738 Nadir Shah invades India and pillages Delhi. His army harassed by the Sikhs.

1739-1747 The Mughal governor of the Punjab persecutes the Sikhs, who adopt a guerilla type warfare and form a united army under the Dal Khalsa with Jassa Singh Alhuwalia in command.

1747 Ahmad Shah Durrani invades India and occupies much of the Punjab. Expansion of Sikh territory between the Chenab and Sutlej rivers.

1748-1749 Second Afghan invasion of India. Sikhs occupy Lahore for a brief period.

1749-1750 Mughal governor of the Punjab wages war on the Sikhs.

1751 Third Afghan invasion of India. Lahore and Multan ceded to Ahmad Shah Durrani. Sikhs occupy much of the Punjab territory.

1753 Mughal governor occupied in repressing the Sikhs. Takes the fort of Ram Rauni at Amritsar and massacres many Sikhs.

1754 Punjab in a state of anarchy. Mughals no longer in effective control. Afghans neglect to establish any real form of government

1754-1756 Sikh bands intrude into Mughal territory.

1756-1757 Fourth Afghan invasion of India. Ahmad Shah advances to Delhi, Mathura and Bindraban. Afghans attacked by Sikhs. Ahmad Shah retaliates by taking Amritsar. The punjab assigned to Taimur. Strong measures by the Afghans to suppress the Sikhs. Battle at Amritsar. Afghans defeated at Hoshiapur.

1758 The Marathas enter the Punjab. Sarhind taken. Afghans vacate Lahore. Sikhs besieged in Ram Rauni at Amritsar by Adina Beg Khan.

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1759 Marathas again enter the Punjab. Afghans defeated by combined forces of Sikhs and Marathas. Ahmad Shah invades India for the fifth time.

1761 The Afghans advance to Delhi after defeating the Marathas at Panipat. Sikhs harry the Afghan army and occupy Lahore.

1762 Ahmad Shah re-occupies Lahore. Massacre of many Sikhs. Takes Amritsar and destroys the Sikh temples.

1763 Sikhs resurgent. Take Kasur and the Jullunder Doab.

1764 Sikhs capture Sarhind and invest Lahore. Seventh Afghan invasion of India. Ahmad Shah takes Amritsar and again destroys the temples.

1765 Sarbat Khalsa meet at Amritsar for Baisakh (10th April). Six of the twelve misls appointed to look after Sikh affairs at Amritsar. Sikhs capture Lahore and invade Rohilkand and the country around Delhi.

1766 Eigth Afghan invasion of India. Lahore retaken and Amritsar captured.

1767 On the departure of Ahmad Shah, the Sikhs re-occupy large tracts of the Punjab and raid into the country about Delhi.

1769 Ninth Afghan invasion of India which reaches the Jhelum river and then returns to Qandahar.

1770 to 1798 Sikh misls expand their territory and consolidate their position in the Punjab

Sikh invasions across the Sutlej into the lands around Delhi.

1772 Bhangi misl capture Multan from the Afghans.

1780 Afghans re-occupy Multan.

1792 Ranjit Singh Sukerchakia takes over the leadership of Sukerchakis misl.

1796 Zaman Shah Durrani invades the Punjab.

1797 Ranjit Singh takes command of a united Sikh army. Afghans advance to within 5 miles of Amritsar. Lahore taken by the Sikhs.

1799 Ranjit Singh takes possession of Lahore.

1801 Ranjit Singh proclaimed Maharajah of the Punjab.

Sikh campaigns against the Pathans of Kaur and the Rajputs of Kangra.

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1802 Sikhs occupy Multan. Amritsar possessed by Ranjit Singh.

1806 Ranjit Singh signs a treaty of friendship and amity with the East India Company.

1809 Ranjit Singh and the East India Company conclude the Treaty of Lahore. Cis-Sutlej states are taken under the protection of the British. Ranjit Singh receives the homage of the chiefs of the hill states and reduces autonomous principalities within the Punjab.

1818 Sikhs capture Multan Fort. End of Afghan influence in the Punjab.

1819 Sikhs take Peshawar and conquer Kashmir.

1820) Sikhs take Dera Ghazi Khan and Dera Ismail Khan.
1821

1823 Battle of Naushera. Sikhs enter Peshawar but do not retain it.

1825 Sikhs advance south towards Shikapur.

1831 Ranjit Singh meets Governor General, Lord William Bentinck at Ropar.

1834 Sikhs annexe Peshawar.

1836 Sikhs restrained by the British from advancing into Sind.

1839 Ranjit Singh dies on the 27th June. Eldest son, Kharak Singh, proclaimed Maharajah.

1843 Sher Singh dies on the 15th September. Dulip Singh successor.

1845 Sikh army crosses the Sutlej and invades British protected territory. Governor General declares war on the Sikhs.

1846 Sikhs finally defeated at Sobraon. British occupy Lahore. Sikh government continued under a British resident. Kashmir made over to Gulab Singh of Jammu.

1848 Dewan Mulraj, Governor of Multan rebels. Multan beseiged by British. War breaks out between the British and the Sikhs.

1849 Final battle of the war at Gujerat on 21st February. Sikhs defeated and British occupy the Punjab. Annexation of the Punjab announced by Lord Dalhousie.

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Appendix 2

Obverse Legends:

Five types of obverse legend have been identified. These are given below. For each legend the word order may vary from issue to issue. In at least one case the legend is probably incomplete. We have attempted to provide a sensible translation for each legend but do not claim that our rendering is correct. It is significant that even Rodgers felt unable to provide a proper translation for the legends.

A. Deg, tegh wa fáth wa nasrat bederang yafat az Nanak Guru Gobind Singh (Abundance; the sword, victory and help without delay Guru Govind Singh obtained from Nanak).

Found on:	Lahore (Type 1)	S, 1822-40
	Multan (Type 1)	S. 1829-36
	Anandgarh	S. 1840-49
	Amritsar(Type 2)	S. 1841-65 (intermittently)
	Kashmir	S. 1876-1903
	Peshawar	S. 1891-94
	Amritsar (Type 6)	S. 1884/95 - S. 1904
	Lahore (miscellaneous types).	

B. Shah Nanak wahib ast fath sa'ee Guru Gobind Singh faizal sakht sikka zad bar do alam sahib (Coin struck in each of two worlds; victory gained by the exertions of Guru Govind Singh and by the grace of Lord Nanak Shah who is the provider.

This legend is possibly incomplete.
Founded on: Amritsar (Type 1) S. 1832-1838.

C. Nanak wahib ast fath tegh Guru Gobind Singh faizal sachha Shahan sahib sikka zad bar do alam (Coin struck in each of two worlds; victory gained by the sword of Guru Govind Singh by the grace of Nanak, Lord of the true kings who is the provider.

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This legend is probably incomplete.

Founded on: Amritsar (Type 3) S. 1841-1845.

D. Shah Nanak wahib ast fath tegh Guru Gobind Singh faizal sakht sikka zad bar har do alam (Coin struck in each of two worlds; victory gained by the Sword of Guru Govind Singh and by the grace of Lord Nanak who is the provider.

Founded on: Amritsar (Type 4) S. 1845-1847
Amritsar (Type 5) S. 1846-1893
Amritsar (Types 5a and 5b)
Amritsar (Type 7) S. 1885/93-1903

E. Tegh az Nanak wahib ast fath Gobind Singh faizal sachha shahan sahib sikka zâd bar seem wazir (Coin struck in gold and silver; Govind Singh gained victory by the grace of the lord of true kings (true lord of kings?) and with the sword of Nanak, who is the provider.

Founded on: Lahore (Type 2) S. 1841-1855
Lahore (Type 3) S. 1856-1884
Lahore (Type 4) S. 1884/87 - 92
S. 1885/95 - 1903
Multan(Type 2) S. 1875-1905

Appendix 3

The Sikh Governors of Kashmir:

There is some disagreement in the source material about the precise dates of the terms of the various governors. Dates given below are therefore approximate but tie in well with the various types of rupee struck in Kashmir.

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Misr Diwan Chand:

This man was a Brahmin and a notable of the Sikh state. He was Ranjit Singh's most successful general and responsible for the occupation of Kashmir. He was governor until the end of 1819.

Diwan Moti Ram:

A Hindu by religion and the son of a well known minister of Ranjit Singh, he succeeded Misr Diwan Chand at the end of 1819 and governed for 14 months.

Sardar Hari Singh Nalwa:

Sardar Hari Singh Nalwa was another of Ranjit Singh's generals who won fame during the conquests of Multan, Peshawar and Kashmir. He appears to have accumulated a vast sum of money whilst in Kashmir, mainly by mis-appropriation and underhand deals. He is said to have introduced a new rupee of base silver in Kashmir. He was governor from early in 1820 and throughout 1821. His administration was extreme and tyrannical and on being recalled by Ranjit Singh his accumulation of wealth was confiscated.

Diwan Moti Ram:

Diwan Moti Ram was reappointed governor for a further term and served as such throughout 1822 until the end of 1824. Moorcroft is reported as visiting him in 1824.

Diwan Chuni Lal:

Diwan Chuni Lal a Hindu, was a governor of Kashmir for two years; throughout 1825 and 1826. On being recalled to Lahore for misgovernment, he committed suicide whilst on route there.

Diwan Kirpa Ram:

Diwan Kirpa Ram was the son of Moti Ram. He was evidently appointed governor at the end of 1826 and held office for three years and ten months. His term is described by Vigne as being "the kindest and best of all". He was recalled toLahore suddenly during the summer of 1831.

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Bhima Singh Ardali:

Bhima Singh Ardali apparently held office as a temporary measure for about 12 months from the middle of 1831. During his governorship he was visited by Victor Jacquemont, a French naturalist.

Sher Singh:

Sher Singh was the reputed son of Ranjit Singh. He was governor of Kashmir from 1832 until 1834, but the precise dates are not known.

Colonel Mehan Singh Kumedan:

Colonel Mehan Singh Kumedan was governor from 1834 until 1841 and also he was the Commandant of the Sikh garrison there. He seems to have been the best of the Sikh administrators and did much to restore trade, industry and agriculture in the valley. He would probably have not remained in office for so long but for the death of Ranjit Singh in 1839. Mehan Singh was killed by rebellious soldiers on the 17th April, 1841.

Shaikh Gholam Muhyid Din:

Shaikh Gholam Muhyid Din was the first Muslim governor of Kashmir. He had been chief munshi to Moti Ram but had been dismissed when Hari Singh took office. He supported himself as a munshi until Karak Singh became Maharajah of the Punjab. His abilities then seem to have been recognised and he was appointed governor. He held the position until 1845.

Shaikh Imam ud Din:

Shaikh Imam ud Din was the son of Gholam Muhyid Din and held the office of governor until November, 1846, when Gulab Singh of Jammu took possession of Kashmir.

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Appendix 5

Literary References:

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(6)	Panish C.K	The First Sikh Trans-Sutlej Coinage	J N S I, Vol XXIX Part II, 1967
(7)	Schulman J	Catalogue of the White King Collection.	Amsterdam, 1905
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(10)	Irvine W.	The Later - Mughals - Guru Gobind Singh & Banda	J A S B., Part I, 1894
(11)	Cunningham J.D	A History of the Sikhs	London, 1849
(12)	Kushwant Singh	A History of the Sikhs	Princeton, U S A., 1949
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(14)	Sufi G.M.D	Kashir - Being a history of Kashmir from the earliest times to our own	Lahore, 1949
		Punjab Gazetteer	Punjab Government, 1914

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THE COINAGE OF THE MAHARAVALA LAKSHMANASINGH OF BANSWARA

CHANDRASHEKHAR GUPTA

Maharavala Lakshmanasingh ascended the throne of Banswara in Vikrama Samvat 1900 (1843-1844 A.D) at an age of 5 years. He was kept under the regency of a British nominee. Therefore he must have issued coins after becoming major(1). 1870 A.D is taken as the year of issuing coins by him. Let us have a survey of the numismatic situation of the region which has an important bearing on thepresent issue.

S-urgeon Captain William Wilfrid Webb of the Bengal Army, who was serving in the courts of Udaipur and Bikaner states in early ninettes of the previous century, studied the coinage of the Native States of Rajputana and 'on the basis of the information gathered from various sources e.g. personal observation, collection of coins of the Province, correspondence with the officials serving under the Indian Foreign Office and many friends among the princes and the officials at their court etc. he prepared an important monograph in 1893 A.D(2) entitled "Currencies of the Hindu States of Rajputana" which sheds welcome light on the subject.

Webb observed (3) that the composition of the coins in an issue of these states was in most cases variable as the pay of the mint officials was poor and consequently there was a temptation to issue coins of an inferior quality to the authorised standards. This had resulted into the circulation of a large number of coins of different values which were in most cases badly stamped and rudely fashioned which had reacted in various harmful ways.

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In view of this condition the Government of India had already instituted an enquiry regarding the condition of minting and coinage of the Native States(4). Probably in response to this enquiry a letter was written by Colonel J P Nixon to the Agent to the Governor General stating that the Chief of the Banswara claimed the right of coining(5).

The Government of India issued an order (vide Foreign Department No. 402, F dated October 6th 1870, No. 25, Resolution 3) not permitting the revival or opening of the mints which had been supperessed altogether or not had been in active use within the past five years (6). Accordingly, Banswara state was also instructed not to issue any new coins. Inspite of this order not only Banswara but other Native States also (which never had a mint earlier) continued or started minting coins as complained by Webb(7). The main reason behind this reaction of the Native States was this that the right of minting the coins was regarded as a sign of sovereignty and the order of the Government was derogatory to their prestige(8). Moreover, the coinage were also utilised on the occasions of marriage ceremonies and nazar and nisar purposes. On these, grounds the Agent to the Governor General for Rajputana made a recommendation to the Government of India in the same year i.e. 1870 A.D to allow Native States to continue the minting of coins(9). Thus as observed by Bhatt and Kothari(10) most of the Native States of Rajputana continued the minting of Silver(and copper too) coins on the pretext that they were needed for marriage ceremonies, gift, charity and other purposes. The same was the case with the ruler of Banswara, Maharavala Lakshmanasingh, who also continued to mint coins in his state on the pretext that they are needed for performing certain religious ceremonies.

Lakshmanasingh had immediately introduced a new set of coins in 1870 A.D which were known after him as Lakshmanashahi (Lachman Shahi as given by Webb) They were issued in all the three metals- gold, silver and copper.

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Script:

The legends on these coins issued by Maharavala Lakshmanasingh are written in a peculiar script, which could not be deciphered till recently. The first reference to it was made by Webb who collected silver coins and a wax cast of the steel die at the Banswara state. He has illustrated them in his werk and made remarks regarding the legend that "the both surfaces of the coins show the same inscription, which is unintelligible even to the Durbar Officials"(11).

The next reference to it is made in the Catalogue of Coins in the Indian Museum, Calcutta, where it is said that the inscriptions on both silver and copper coins have so far baffled interpretation(12).

For the first time RB Pt Gaurishankar H Ojha and his assistant Pt Karuna Shanker tried to decipher this script. Since an inscription in the same script was found engraved on a marble slab fixed on the wall of the Rajarajeshwara temple at Banswara, they named this script as Rajarajeshwari lipi. Without giving the details of the decodement, they read the legends on the gold and silver coins as "Om namah Sivaya"and as "Om namah" in the centre with "Banswara riyasata"around it on copper coins(13).

The latest comments regarding this script were made by Bhatt and Kothari while dealing with the history and the coinage of the Banswara state(14). They accepted the readings of the legends as given by Ojha and Karuna Shanker(15), but with the reservation that it is very difficult for them to reject or to confirm(16). They also thought that the script appears to be a curious combination of various scripts like Brahmi, Gujarati, Modi, Nagari and Urdu which were once in use in the Banswara region(17).

Incidentaly, it may be pointed out that the centre legend on the copper coins read by Ojha and Karuna Shanker as Om namah was regarded by the editors of the journal of the Numismatic Societyof India, as a conv-entional representation of Sivalinga(18). It was further identified with

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the Rajarajeshvara of Banswara and it was suggested the coins were probably struck in the name of Rajarajeshwara or Siva(19).

We have also tried to decode the mystry of this script and succeeded (except for a couple of signs) with the help of the same inscription in the Rajarajeshwara Temple. The inscription gives all the signs of this script arranged in a circular mode and with this key the legends on the coins can be read easily(20).

Legends:

The legends on the gold and silver coins are identical which can be read from left to right as Samsatraba which makes no legible sence. But if we split the legend in four separate letters and restore it as Sambasatra, by grouping the first and the fourth and the second and the third letter, it gives very significant reading. For Samba is the name of Siva and in the Nagari inscription of the same slab fixed in the Rajarajeshvara temple of Banswara he is evoked in the very first line as "Samba sri Rajarajeshvara". Moreover, we are told that Maharavala Lakshmanasingh who built this temple issued the coins in pure silver for offering before Lord Siva and for other charitable and religious ceremonies, for at that time Shah'alam Shahi coins of debased silver were in circulation the offering of which for charity and other religious purposes in the temple was regarded by him as against Hindu religious traditions(21). It is evident from the legend "Sambasatra" that the coins were for the religious charitable purposes of the Samba.

The question may be raised why the legend was not given in a normal sequence. The reason is simple that the Chief was pretending that these coins were not only very old (for which he had got invented a new script and also arranged the legend in a typical manner lest any body could read it) but also for religious and charity purposes, so that the right of minting them was not withdrawn from him. The second reason may be the religious secrecy in order to avoid the black magic effect. Otherwise, it would appear very strange that just after two decades of

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minting these coins, with this typical script, nobody was able to read it, even the Darbar officials as we are told by Webb. Moreover, at that time Maharavala Lakshmanasingh himself was alive. At least he could have read and communicated the readings to Webb. But from the situation it is quite certain that he did not want it to be disclosed. Probably for the benefit of his successors he got the key of the script inscribed in the inscription lest after him there should not be anyone to read it.

On all but one type of the copper coins in the centre the legend is "Samba" and around it is Sahara Bamsahapura. Only one type gives the centre legend as "Samba Satra" alike the gold and silver coins instead of "Samba". The legend on these copper coins are found to have been written in very careless manner by the drafter of them. For we often find that the central legend is written a Samba or the letter ba is written with the knot bent downwards instead of upwards. Similarly, the peripheral legend is found variously written as Sahara Bamsapuhura, Sahera Bamsahapura, Sehera Bamsapuhura etc. Moreover, the thinkness of the letters on some coins is so much that it makes them look crude and dumpy. While going through the various forms of representation of the central legend - which looks like a symbol to a layman who is not acquainted with the script - one can notice that if it is read in reverse mode i.e. from right to left then it may also be read as"Bamsa" giving the name of the state and most probably for this reason it is often written as "Samba".

Coin Types:

Coin-types in different metals are described below:

Gold: The gold coins of Banswara have not been noticed by Webb. Ojha has mentioned that Lakshmanasingh minted gold coins alongwith silver and copper coins. The gold coins of this state are known to us. Bhatt and Kothari observed that the gold coins might have been minted by Lakshmanasingh either after 1893 A.D (the date of publication of Webb's book) or were not meant for general circulation(23). To us the second alternative appears to be more probable as actually these gold muhars were used only on ceremonial occasions for nazar and nisar purposes. The Chittodi Svarupashahi Muhar

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was also a gold coin of this type(24).

The gold coins, most probably known as the Lakshmanashahi Muhar, are only of one type(25).

1. Shape - Round; Size - Dia. 2 cms; Wt. - 12 gms.

   Obv: In the centre the legend Sambasatra written horizontally in the Lakshmanashahi script with typical arrangement of letters. The upper and lower sides show a design formed by creeper like line joined to form arches.

   Rev: Same as Obv.

Silver: Webb had mentioned and illustrated only Rupee, ½ Rupee and ¼ Rupee silver coins of this state. But 1/8 Rupee coins are also known(26). These coins also show only one type. With the die variations seen mainly through the creeper designs, some varieties can be made out which will however be insignificant.

The coins described below are from the collection of my friend Shri Prashant P Kulkarni to whom I am very much grateful for allowing me to study and publish them.

2. Shape - Round; Size - Dia. 2.4 cms; Wt. - 8.150 gms.
   Obv: Same as on No. 1 above.
   Rev: Same as Obv.
3. Shape - Round; Size - Dia. 1.7 cms; Wt. - 3.950 gms.
   Obv: Same as above.
   Rev: Same as Obv.
4. Shape - Round; Size - Dia. 1.4 cms; Wt. - 2.000 gms.
   Obv: Same as above.
   Rev: Same as Obv.
5. Shape - Round; Size - Dia. 1.1 cms; Wt. - 1.020 gms.
   Obv: Same as above.
   Rev: Same as Obv.

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Besides this there is another series of Silver coins of this state which show a thin flan and consequently larger size, the weight and devices remaining the same. Unfortunately, these coins are not illustrated hence we are unable to say whether the dies of the same size (as of the former series) were employed in minting them leaving some blank space around or seperate larger dies were used (27).

Copper: The Copper Coins are referred by Webb but are neither described nor illustrated by him. The one coin described by him as Lakshmanashahi Paisa is actually not the coin of this ruler(28). The Copper coins from the collection of Shri Prashant P Kulkarni can be distributed into following three types on the basis of their legends and devices.

Type I

6. Shape - Round; Size - Dia. 2.2 cms; Wt. - 10.700 gms.
   Obv: In the centre the legend Samba. The legend around it starting at X Sahara Bamsapuhara.
   Rev: Same as Obv.
7. Shape - Round; Size - Dia. 1.8 cms; W . - 5.120 gms.
   Obv: In the centre the legend Samba Traces of lower portion of the peripheral legend as on coin no. 6. Legend starts at IX.
   Rev: Same as on Obv. Only Saha visible. Legend starts at XI.

Type II

8. Shape - Round; Size - Dia. 1.8 cms; Wt. - 5.120 gms.
   Obv: In the centre Samba with the knot of the letter ba bent downwards, around it the legend starting at XII. In between XII and IX (ha -Bam) Sa (puhara) can be read.
   Rev: Same as Obv. The peripheral legend starting at IX where only lower portion of Saha can be seen.
   The complete legend(29) on this type is Sehera Bamsapuhura.

Type III

9. Shape - Round; Size - Dia. 1.8 cms; Wt. - 5.320 gms.
   Obv: The centre legend same as above no. 8 but inside a circle. The peripheral legend starting at XII show only lower portion of Sahara Bamsa.
   Rev: Same as Obv (ha) ra Basa can be read.

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The complete legend is Sehara Bamsahapura(30). On the basis of the published coins of this state two more types and a unique mule coin can be made out.

Type IV Variety 1 (31)

10. Shape - Square; Size - 1.7 x 1.8 cms. appr; Wt. - Not given

Obv: The legend Samba, with the knot of ba bent downwards, encircled by three circular borders the middle one being composed of dots (beaded border).

Rev: Blank.

Type IV Variety 2 (32)

11. Shape - Round; Size - ? ; Wt. - ?

Obv: As on No. 10

Rev: Blank

Type IV Variety 3 (33)

12. Shape - Round; Size - Dia. 1.8 cms appr; Wt. - ?

Obv: As on No. 9 except the centre legend whichis Samba

Rev: Blank

Type V (34)

13. Shape - Round; Size - ? ; Wt. - ?

Obv: Inside a circle in the centre the legend Sambasatra as already noticed on the gold and silver coins. Around it the peripheral legend starting at II Sa ... Sahapura.

Rev: Same as Obv.

Mule Coin:

A mule coin with one side of Type I and the other side of Type II has been brought to light(35).

Footnotes:

1. According to SK Bhatt and N K Kothari Lakshmanasingh became Major in 1856 A.D and the administration of the state was handed over to him (JNSI, XXXVII, p. 135) while according to other sources the period of his rule was 1862-1905 A.D(CCIMC, IV, p. 218; South Asian Coins and Paper Money since 1556 A.D (SACPM), p. 136.
2. Reprint Delhi 1972.
3. Op. cit. preface pp X ff.
4. Ibid., p. X.

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5. Webb, op. cit., p. 33.
6. Ibid.
7. Ibid., pp. Preface X, 33.
8. JNSI, XXXVII, pp. 136-137.
9. Webb, op. cit., p. 34.
10. JNSI XXXVII, p. 137.
11. Webb, Op. Cit. p. 34, pl. III, fig. 13 etc.
12. CCIMC, IV. p. 218.
13. History of Rajputana, Vol III pt. II p. 200 quoted in JNSI XXXVII, p. 137.
14. Ibid., pp. 134-142.
15. At one place they give credit for this to Ojha (Ibid. p. 140) at other to Karuna Shanker (Ibid. p. 138) at a third place to both (Ibid. p. 137).
16. Ibid., p. 140,
17. Ibid., p. 141
18. Ibid., p. 138, fn. 2; p. 141, fn. 2
19. Ibid.
20. Our article on the decipherment of this script is under publication elsewhere.
21. JNSI, XXXVII, p. 137.
22. JNSI, XXXVII, pp. 137-138, pl. XIV 1; SACPM, p. 136.
23. JNSI, XXXVII, p. 137.
24. Ibid., XXV, p. 82.
25. Ibid., XXVII, pp. 137-138; pl. XIX. 1; SACPM, p. 136.
26. Ibid. where the authenticity of this coin is said to be doubtful. JNSI XXXVII, p. 138, pl. XIV. 5.
27. JNSI, XXXVII, p. 138; SACPM, p. 136 where authenticity is expressed as doubtful.
28. We wish to discuss this matter separately. For illustration of this coin see Webb, op. cit. pl. III. 17; CCIMC, IV, Pl. XIII. 5; JNSI, XXXVII Pl. XIV. 16.
29. Ibid. Pl. XIV. 7.
30. JNSI XXXVII, pl. XIV. 9.

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31. On the basis of photograph kindly supplied by Dr S K Bhatt.
32. JNSI XXXVII, pl. XIV. 14
33. On the basis of photograph of the coin supplied by Dr S K Bhatt.
34. SACPM, p. 136.
35. Ibid.

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